



## CURRICULUM VITAE

### Mousa Bani Baker

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#### 1. Personal Data

Date of Birth: 1976

Nationality: Jordanian - Canadian

#### 2. Education

- Ph.D. (Civil Engineering/Geotechnical Engineering) 2010, Concordia University, Montreal, Quebec, Canada.
- M.Sc. (Civil Engineering/Geotechnical Engineering) 2003, Concordia University, Montreal, Quebec, Canada.
- B.Sc. (Civil Engineering) 2000, Jordan University of Science and Technology, Irbid, Jordan.

#### 3. Ph.D. Dissertation

*The Effect of Alternative Fuels on the Performance of Sand-Bentonite Liners and the Application of Electro-Silicatization Technology into Liners Rehabilitation, Concordia University, Quebec, Canada.*

#### 4. Employment

##### Academic Positions



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- Assistant Professor, Department of Civil and Infrastructure Engineering, Al-Zaytoonah University of Jordan, Amman, Jordan (2014-Now).
- Assistant Professor, Department of Civil Engineering, American University of Madaba, Madaba, Jordan (2013-2014).
- Assistant Professor, Department of Civil Engineering, Philadelphia University, Amman, Jordan (2012-2013).
- Assistant Professor, Department of Civil Engineering, Jerash University, Jerash, Jordan (2011-2012).
- Graduate Assistant (Teacher and Research Assistant) Department of Building, Civil and Environmental Engineering, Concordia University, Montreal, Quebec, Canada (2001-2003), (2005-2010).

#### **Administrative Positions**

- Vice Dean, Faculty of Engineering and Technology, Al-Zaytoonah University of Jordan, Amman, Jordan (2016-2017).
- Chairman of Civil and Infrastructure Engineering Department, Faculty of Engineering and Technology, Al-Zaytoonah University of Jordan, Amman, Jordan (Summer 2017).
- Chairman of Civil and Infrastructure Engineering Department, Faculty of Engineering and Technology, Al-Zaytoonah University of Jordan, Amman, Jordan (2014-2015).
- Chairman of Civil Engineering Department, Faculty of Engineering, Philadelphia University, Amman, Jordan (2012-2013)
- Acting Dean, Faculty of Engineering, Jerash University, Jerash, Jordan (Summer 2012).
- Chairman of Civil Engineering Department, Faculty of Engineering, Jerash University, Jerash, Jordan (2011-2012).

#### **5. Research Interests**

The use of clays and rocks as construction materials  
Soil rehabilitation

#### **6. Membership in Scientific Societies and Associations**

- Member of the Jordanian Engineers Association, Amman, Jordan
- Candidate member of Professional Engineers of Ontario (Toronto, Canada) (Passed all exams and waiting for the certificate).

#### **7. Honors and Awards**

- PhD research work was funded from NSERC discovery grants awarded to my supervisors: Professor Maria Electrowicz and Professor Adel Hanna Montréal, Quebec, Canada, 2008-2010.



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- Teaching assistant awards, Concordia University, Montréal, Quebec, Canada, 2002, 2003, 2005, 2006, 2007, 2008
- Research assistant award, Concordia University, Montréal, Quebec, Canada 2005-2010
- Concordia Graduate Students Support Program Award 2005-2008
- Concordia Graduate Students Support Program Award 2001-2003

### 8. Fellowships and Scholarships

Royal Jordanian Military Scholarship      1995-2000

### 9. Teaching Experience

#### *Undergraduate Courses*

Engineering Geology  
 Geotechnical Engineering  
 Foundation Engineering  
 Advanced Soil Mechanics  
 Concrete Technology  
 Surveying Engineering  
 Introduction to Civil Engineering  
 Environmental Engineering  
 Fluid Mechanics  
 Statics  
 Geotechnical Engineering Lab  
 Surveying Lab  
 Environmental Engineering Lab

### 10. Grants

- Improved Strength and Durability Resistance of Concrete Containing Steel Slag, 2015, Deanship of scientific research and higher studies, Al-Zaytoonah University of Jordan, Amman, Jordan (24,850 JD).
- Improved Strength and Durability Resistance of Concrete Mix Containing Jordanian Bentonite and Asphalt Containing Jordanian Bentonite, 2015, Deanship of scientific research and higher studies, Al-Zaytoonah University of Jordan, Amman, Jordan (13,700 JD).
- High Sound Isolation System, 2014, granted by KADDB and KAFD, Amman, Jordan (4000 JD).
- Circulation of Traffic at King Hussein Medical Center, 2016, granted by KADDB and KAFD, Amman, Jordan (2500 JD)



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- Student graduation project, ZUJ-Faculty of Engineering and Technology, Amman, Jordan, 2018 (300 JD).

**11. Patents**

None

**12. Membership of Committees****National and International**

- Member of the organizing committee of the 8<sup>th</sup> International conference on Engineering, Project, and Product Management (EPPM 2017).
- Member of the scientific committee of the 8<sup>th</sup> International conference on Engineering, Project, and Product Management (EPPM 2017).
- Member of the organizing committee of Al-Zaytoonah University third International Conference on Environmental Design and Innovation (ZEC-2016).

**University**

- Member of the Civil and Infrastructure Engineering Curriculum Committee 2018/2019.
- Head of ABET Joint Accreditation Committee (JAC) Criterion 2 PEO's.
- Member of ABET Department Accreditation Committee (DAC).
- Head of ABET Self Study Report (SSR) for criterion 2 SSR-PEO's.
- Member of the SSR committee.
- Head of the Industry-Department liaison committee- Responsible of the Industrial Advisory Board (IAB).
- Member of the QS world ranking committee at ZUJ 2017-Now.
- Head of the Quality Assurance committee, Department of Civil and Infrastructure Engineering, Al-Zaytoonah University of Jordan 2016/2017.
- Member of the ABET accreditation committee, Department of Civil and Infrastructure Engineering, Al-Zaytoonah University of Jordan 2016/2017.
- Member of Al-Zaytoonah University Council 2015/2016.
- Member of the faculty of engineering and technology council 2014/2015.
- Faculty of Engineering ABET Committee AUM 2013/2014.
- Member of research committee AUM 2013/2014.
- Member of faculty of engineering board at Philadelphia University 2012/2013.
- Member of research committee of Philadelphia University 2012/2013.
- Member of Quality Assurance committee at Philadelphia University 2012/2013.
- Member of the health and safety committee, Faculty of Engineering and



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Computer Science, Concordia University, Montreal, Quebec, Canada,

### 13. Professional and Scientific Meetings

#### *Scientific Meetings Organized*

- Member of the scientific committee of the Second Modern Technical and vocational Education Workshop, Ma'an, Jordan (2018)

#### *Participation in Scientific meetings and workshops*

- Proposal writing workshop. Porter center for consultations and training. Amman, Jordan 12 Hours. Sep 2018
- Presentation skills workshop. Porter center for consultations and training. Amman, Jordan 12 hours. Sep 2018
- Capstone Project Preparation (According to ABET criteria) Workshop, ZUJ, Amman, Jordan, 2018 (Presenter)
- The Seventh Jordanian International Civil Engineering Conference, Amman, Jordan, 2017
- Using and Managing e-Learning System Workshop, ZUJ, Amman, Jordan, 2017 (3 days)
- Arab student engineering training program, supervisor, ZUJ, summers of 2016 and 2017 (3 weeks/ year)
- Building and Analyzing Exams Workshop, ZUJ, Amman, Jordan, 2017 (3 days)
- 8<sup>th</sup> Traffic Safety Conference in Jordan, Innovations in Traffic Planning, Engineering and Safety, Amman, Jordan, 2017
- Modern Engineering Technology in Technical and Vocational Education Renewable Energy and Environmental Engineering, Workshop, Ma'an, Jordan, 2016
- FIDIC training workshop (instructor), ZUJ, 2016 (10 hrs.)
- Workshops in Modern Engineering Technology and its Application, Jerash, Jordan, 2015
- Armfield Seminar "Lab equipment and technology", Amman, Jordan, 2015
- The Second Annual Symposium for Information Technology Students in Jordan SITS 2012
- 25<sup>th</sup> Eastern Canadian Symposium of the CAWQ on Water Pollution Research, October 30, 2009. Ottawa-Carleton Institute for Environmental Engineering Ottawa, Ontario, Canada
- Professional workshop on health and safety, Montreal, Canada (2 days)
- Professional workshop on law and ethics, Ottawa, Canada 2008 (3 days)
- Professional workshop on safety on construction sites, Montreal, Canada, 2003 (2 days)



#### **14. Participation in organization of curricular and/or extra-curricular activities**

- Head of the social, cultural and sport committee at the faculty of engineering and technology, Al-Zaytoonah University of Jordan 2017/2018.
- Reviewer for several conferences and Journals, 2018.
- Member of the MASC examining committee at the Department of Civil Engineering, JUST, Jordan, 2018.
- Co-supervisor of several master degree students.
- Supervisor of several capstone projects.
- Member of the consulting board of the National Jordanian Political Party 2016-now.
- Head of the social committee at the department of civil and infrastructure engineering, Al-Zaytoonah University of Jordan 2015/2016
- Member of the board of governors (Governor), Concordia University, . Montreal, Canada, 2007/2008.
- Member of the board of senates (Senator), Concordia University, Montreal, Canada, 2007/2008.
- President of Graduate Students Association (GSA), Concordia University, Montreal, Canada, 2007/2008.
- Vice president and co-founder of the Teacher and Research Assistants Union (TRAC), Concordia University, Montreal, Canada, 2005/2007.
- Member of the governing boards of North American Universities and Colleges 2007/2008.
- Member of steering committee of the search committee for the Dean of Engineering and Computer Science, Concordia University, Montreal, Canada, 2008.
- Member of the search committee for the Dean of Engineering and Computer Science, Concordia University, Montreal, Canada, 2008
- Election poll clerk, Federal election of Canada, west mount, Montreal, Quebec, Canada, 2011.
- Student's representative, Department of Building, Civil and Environmental Engineering, Concordia University, Montreal, Canada, 2005.
- Canada Inc. Business and trade, Canada, 2004/2005.
- Rogers Canada, Canada, 2003/2004.
- German Technical for International Cooperation, Jordan, 2000/2001.
- Reviewer for many journals including Journal of Hazardous Materials, Journal of Advanced Science and Engineering Technology. And a reviewer for many international conferences.
- Member of the editorial board of, Journal of Advanced Science and Engineering Technology.

#### **15. Publications**



### Papers in refereed journals

- **Bani Baker M.**, Elektorowicz M., Hanna A., Elctrokienetic Nondestructive In-situ Technique for Rehabilitation of Liners Damaged by Fuels, Journal of Hazardous Materials. Vol. 359 (2018) P: 510-515.
- **Bani Baker M.I.**, Abendeh R.M., Obaidat T.S., Employing Natural Bentonite Clay as Partial Replacement of Mineral Filler in Asphalt Mixtures, ASCE's Journal of Materials in Civil Engineering, (2018) Vol. 30 Issue 8. P: 1-8.
- Abendeh R., AbuSalem Z., **Bani Baker M.**, Khedaywi T., Strength and Resistance to Freezing-Thawing Action of Concrete Containing Waste Glass, Proceedings of the Institution of Civil Engineers-Construction Materials, 2018. <https://doi.org/10.1680/jcoma.17.00065>
- **Bani Baker M.**, The Application of Marble and Granite as Building Materials in Jordan, Jordan Journal of Civil Engineering. Vol. 11, no. 2, 2017, pages 234-238.
- Abu Salem Z., Khedawi T.S., **Bani Baker M.**, Abendeh R., Effect of Waste Glass on Properties of Asphalt Concrete Mixtures, Jordan Journal of Civil Engineering. Vol. 11, no. 1, 2017, pages 117-131.
- **Bani Baker M.**, Abendeh R., Abu Salem Z., Taisir S. Khedawi, Production of Sustainable Asphalt mixes Using Recycled Polystyrene. International Journal of Applied Environmental Sciences. Vol. 11, no. 1, 2016, pages 183-192.
- Abendeh R., Ramadan K., Haddad R., **Bani Baker M.**, Freezing Thawing Resistance of Concrete Incorporating Glass Waste, Journal of Materials Science Research. Vol. 4, no. 4, 2015, pages 19-25.
- **Bani Baker M.**, Elektorowicz M., Hanna A., Qasem A., The Influence of Biofuels on the Permeability of Sand-Bentonite Liners. International Journal of Environmental and Ecological Engineering. Vol. 6, no. 12, 2012, pages 804-807.

### Conference Presentations

- **Bani Baker M.**, Abendeh R., Using Hollow Concrete and Thermostone Blocks in Sound Isolation System, Lecture Notes in Mechanical Engineering (Springer) 2018, Chapter 18, pages 171-177. Proceeding of the 8th International Conference on Engineering, Project, and Product Management (EPPM 2017).
- Abendeh R., **Bani Baker M.**, Abu Salem Z., Ahmad H., The Feasibility of Using Milled Glass Wastes in Concrete to Resist Freezing-Thawing Action, International Journal of Civil, Environmental, Structural, Construction and Architectural Engineering Vol:9, No:8, 2015, pages 981-984. Proceeding of the 17th International Conference on Civil and Construction Engineering, London, UK, 2015.



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- **Bani Baker M.**, Elektorowicz M., Hanna A., Abendeh R., Ayadat T., Electrokinetic Nondestructive In-situ Technique for Rehabilitation of Damaged Liner, The symposia on Electrokinetic Remediation EREM2017, August 2017, Montreal-Canada.
- **Bani Baker M.**, Abendeh R., Abu Salem Z., Ahmad H., The Engineering Properties of Jordanian Marble, 17th International conference on Civil and Building Engineering, 2015, Montreal, Quebec, Canada.