

CURRICULUM VITAE

Mousa Bani Baker

Professor (Associate)

Civil Engineering/Geotechnical

Department of Civil and infrastructure Engineering
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1. Personal Data

Year of Birth: 1976

Nationality: Jordanian, Canadian

2. Languages: Arabic, English, and basic French

3. 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

4. Dissertations

3.1 PhD:

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



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3.2 MASc:

Passive Earth Pressure of Overconsolidated Cohesionless Backfill Overlaying Natural Deposit, Concordia University, Quebec, Canada

5. Employment**Academic Positions**

- Associate Professor, Department of Civil and Infrastructure Engineering, Al-Zaytoonah University of Jordan, Amman, Jordan (May 7, 2018- Now)
- Assistant Professor, Department of Civil Engineering, American University of Madaba, Madaba, Jordan (2013-2014)
- 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)



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6. Research Interests

- The use of clays and rocks as construction materials
- Soil rehabilitation

7. 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).

8. 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
- 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

9. 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



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- Geotechnical Engineering Lab
- Surveying Lab
- Environmental Engineering Lab
- Capstone Project
- Engineering Training

10. Grants

- Production of improved cellular concrete for soil stabilization techniques and structural applications, 2019, Deanship of scientific research and higher studies, Al-Zaytoonah University of Jordan, Amman, Jordan (47,650 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)
- Student graduation project, ZUJ-Faculty of Engineering and Technology, Amman, Jordan, 2018 (300 JD).

11. Membership of Committees

National and International

- Member of the organizing committee of the 8th International conference on Engineering, Project, and Product Management (EPPM 2017)
- Member of the scientific committee of the 8th 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 University Qualification Exam
- Head of procurement committee (department of Civil and Infrastructure Engineering, Al-Zaytoonah University of Jordan 2018).
- 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



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- 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 Computer Science, Concordia University, Montreal, Quebec, Canada, 2006

12. 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)



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Participation in Scientific meetings and workshops

- Ethics in the engineering profession (workshop) Amman, Jordan April 2019
- Using modern technologies in teaching processes (workshop) ZUJ, March 2019
- E-learning using Moodle workshop, ZUJ, April 2019
- Hypothetical ABET visit workshop, ZUJ, Feb 2019
- Applied Basic Statistics Assisted with SPSS Software, workshop (15 hours), Feb 2019
- 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)
- 8th 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
- 25th 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)

13. 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



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- Member of the MASC examining committee at the Department of Civil Engineering, JUST, Jordan, 2018
 - 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
14. Reviewer for many journals including Journal of Hazardous Materials, International Journal of Engineering and Sciences, and many international conferences.
15. Member of the editorial board of International Journal of Engineering and Sciences.

16. Publications

- Papers in refereed journals
 1. **Bani Baker M.**, Elektorowicz M., Hanna A., Electrokinetic Nondestructive In-situ Technique for Rehabilitation of Liners Damaged by Fuels, Journal of Hazardous Materials. Vol. 359 (2018) P: 510-515.
 2. **Bani Baker M.I.**, Abendeh R.M., Obaidat T.S., *Employing Natural Bentonite Clay as Partial Replacement of Mineral Filler in Asphalt*



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- Mixtures*, ASCE's Journal of Materials in Civil Engineering, (2018) Vol. 30 Issue 8. P: 1-8.
3. 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>
 4. **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.
 5. 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.
 6. **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.
 7. 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.
 8. **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

1. **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).
2. 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.
3. **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.



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4. **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.