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Professor (Full) of Water Resources and Environmental Engineering
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Citizenship:

Jordanian

EDUCATION:

- 08/00-01/04 **Ph.D. in Civil Engineering**-Washington State University (WSU) Pullman WA-99164, USA. Major: Civil Engineering, Minors: Water Resources and Environmental Engineering.
- 08/95-01/98 **M.Sc. in Civil Engineering**- Jordan University of Science and Technology (JUST), JORDAN. Major: Civil Engineering, Area of concentration: Water Resources & Environmental Engineering.
- 09/90-01/95 **B.Sc. in Civil Engineering**, Jordan University of Science and Technology (JUST), JORDAN. Major: Civil Engineering, Minor field: Water Resources and Environmental Engineering.

ACADEMIC EMPLOYMENT:

- 9/2018-present: Dean, Faculty of Engineering, , **The Hashemite University**, Department of Civil Engineering, P.O. Box 150459, Zarqa 13115, Jordan.
- 08/2016- *Present*: (Full Professor), Department of Civil Engineering, **The Hashemite University**, Department of Civil Engineering, P.O. Box 150459, Zarqa 13115, Jordan.
- 12/2015- *09/2017*: Vice Dean of the Deanship of Scientific Research, **The Hashemite University**, P.O. Box 150459, Zarqa 13115, Jordan.
- 09/2014-09/2016: Head of Department of Civil Engineering, **The Hashemite University** , P.O. Box 150459, Zarqa 13115, Jordan.

09/2013-09/2016: (Associate Professor). **The Hashemite University**, Department of Civil Engineering, P.O. Box 150459, Zarqa 13115, Jordan.

09/2010-08/2013: (Associate Professor). **University of Tabuk**, College of Engineering, Department of Civil Engineering, Tabuk 71491, P.O. Box 741, KSA.

06/2009-08/2010 (Associate Professor). **The Hashemite University**, Department of Civil Engineering, P.O. Box 150459, Zarqa 13115, Jordan.

02/2004-06/2009 (Assistant Professor). **The Hashemite University**, Department of Civil Engineering, P.O. Box 150459, Zarqa 13115, Jordan.

09/2004-09/2007 (Assistant Dean of Engineering College for Students' Affairs). **The Hashemite University**, Department of Civil Engineering, P.O. Box 150459, Zarqa 13115, Jordan.

05/2003-01/2004 (Research Associate). **University of Iowa**, IIHR-Hydroscience & Engineering, Iowa City, IA 52242, USA, tel.: (319) 335-52540.

05/2001-04/2003 (Teaching Assistant). **Washington State University**, Department of Civil and Environmental Engineering Pullman, WA 99164, USA.

08/2000-04/2001 (Research Assistant). **Washington State University**, Department of Civil and Environmental Engineering Pullman, WA 99164, USA.

10/98-07/00 (Researcher). **The University of Jordan**, Water and Environment Research and Study Center (WERSC), Amman, Jordan.

05/95-01/98 (Teaching Assistant). **Jordan University of Science and Technology**, Department of Civil and Environmental Engineering, Irbid, Jordan.

MEMBERSHIP:

- Jordan Association of Civil Engineers (JEA)
- Associate Member in the American Society of Civil Engineers (ASCE)
- Environment and Water Resources Institute, EWRI-USA
- Affiliated Member in Coasts, Oceans, Ports, and Rivers Institute (COPRI)-USA

RESEARCH AREAS OF CURRENT INTEREST

- Desalination and Water Quality
- Solid waste management
- Wastewater treatment and reuse
- Sediment transport modeling
- River Engineering and watershed management

AWARDS

- Excellent Industrial Award for the best project in the Faculty for Factory Program, 3rd position, Ministry of Higher Education and Scientific Research, Amman, Jordan, 2008
- 2007 Visiting International fellowship award in the World Environmental and Water Resources Congress, Florida, USA, May 14-17, 2007 for the paper entitled "Perspectives on Sustainable Wastewater Treatment Technologies and Reuse Options in the Urban Areas of the Mediterranean Region"

EDITORIAL BOARD MEMBERSHIP:

- American Journal of Environmental Protection, SciencePG, USA
- CAASR Transactions on Civil and Structural Engineering, Canada

RESEARCH PUBLICATIONS:

1. Ahmed **Bdour** (2018). Utilization of Wireless Sensor Networks and Real-Time Remote Monitoring Stations in Protecting Marine Ecosystem. Journal of Engineering Research and Reports, 2018 Vol. (٧) No. ١, pp. 278-286.
2. Thakir Almomani, Suleiman BaniHani BaniHani, Ahmad **Bdour**, Othman Smadi, Amer Alsaraira, Ahmad Al-Jarrah, Rula Abdallat, and Samer Awad (2016). Influence of erythrocyte shape on platelet scattering toward vessel wall. International Journal of Biomedical Engineering and Technology, 2016 Vol. 21 No. 3, pp. 264-278. ISSN: 1752-6418, DOI: [10.1504/IJBET.2016.078289](https://doi.org/10.1504/IJBET.2016.078289)
3. Zeyad Tarawneh, Ahmed **Bdour** (2015). Bias in Return Period of Droughts Estimated from Tree-ring Reconstructions. Water Resources (springer), Water Resources 43(3):565-570 · May 2016, ISSN: 0097-8078, DOI: [10.1134/S0097807816030179](https://doi.org/10.1134/S0097807816030179)
4. Ahmed **Bdour**, Zeyad Tarawneh, Thakir Almomani, Mohammed ElMashaleh (2015). Analysis of Hospital Staff Exposure Risks and Awareness about Poor Medical Waste Management - A Case study of the Tabuk Regional Healthcare System - Saudi Arabia (2015). Journal of Communicable Diseases. Volume 47(2), pp. 1-13. ISSN: 0019-5138
5. Ahmed N. **Bdour**, Yahia Khalayleh, Aslam A. Al-Omari (2015). Assessing Mechanical Properties of Hot Mix Asphalt with Wire Wool Fibers. Advances in Civil Engineering, Volume 2015, Article ID 795903, 6 pages. DOI: [10.1155/2015/795903](https://doi.org/10.1155/2015/795903)
6. Mohammad S. El-Mashaleh, Khaled H. Hyari, Ahmad N. **Bdour**, Shaher M. Rababeh (2015). A Multi-Attribute Decision-Making Model for Construction Enterprise Resource Planning System Selection. International Journal of Construction Education and Research, DOI: [10.1080/15578771.2015.1015755](https://doi.org/10.1080/15578771.2015.1015755)

7. Ahmed N **Bdour**, Aljuhani M. (2013). Utilization of Waste Marble Powder In Cement Industry, Int. J. of Environment and Waste Management, 2013 Vol.11, No.4, pp.399 – 409, [DOI: 10.1504/IJEWM.2013.054265](https://doi.org/10.1504/IJEWM.2013.054265)
8. Ahmed N. **Bdour**, 2013. Influence of Stream Corridor Parameters on Fish Populations in the Clearwater River, ID, USA. Journal of Fisheries and Aquatic Science, 8: 506-515. DOI: [10.3923/jfas.2013.506.515](https://doi.org/10.3923/jfas.2013.506.515)
9. Ahmed **Bdour** (2012). Perspectives on a Strategic Jordanian Water Project: The Red Sea to Dead Sea Water Conveyance Construction. Trends in Applied Sciences Research 3(1):121-126. (ISSN: 2141-7016)
10. Ahmed N. **Bdour** (2011). Perspectives on a Strategic Jordanian water project: The Red Sea to Dead Sea Water Conveyance Construction, Journal of Emerging Trends in Engineering and Applied Sciences (JETEAS) 3 (1): 121-126 **ISSN:2141-7016**
11. Ahmed N **Bdour** and Yahia A. Al-Khalayleh (2010). Innovative Application of Scrap-Tire Steel Cords In Concrete Mixes. Jordan Journal of Civil Engineering, Volume 4, No. 1, **ISSN: 1993-0461**
12. Nidal Hadadin, Maher Qaqish, Emad Akawwi and Ahmed **Bdour** (2010). Water shortage in Jordan: Sustainable solutions. Desalination Journal, Vol. (250), pp. 197-202. [Doi:10.1016/j.desal.2009.0.1.26](https://doi.org/10.1016/j.desal.2009.0.1.26)
13. Ahmed N **Bdour** (2010). Development of Specifications for Urban Wastewater Utilization in Jordan. Journal of Environmental Protection, Vol. (4), pp. 114-125 [doi:10.4016/jep.2010.50128](https://doi.org/10.4016/jep.2010.50128)
14. Ahmed **Bdour**, Moshrik Hamdi, and Zeyad Tarawneh (2009). Perspectives on Sustainable Wastewater Treatment Technologies and Reuse Options in the Urban Areas of the Mediterranean Region. Desalination Journal, Vol. (237), pp. 162-174. [doi:10.1016/j.desal.2007.12.030](https://doi.org/10.1016/j.desal.2007.12.030)
15. Hamdi, M. **Bdour** A., and Zeyad Tarawneh (2008). Diesel Quality in Jordan: Impacts of Vehicular and Industrial Emissions on Urban Air Quality. Journal of Environmental Engineering Science, 25(9): 1333-1344. **DOI: 10.1089/ees.2007.0234**
16. Ahmed **Bdour**, Moshrik Hamdi, and Moa'yyad Shawaqfeh (2008). Enhancing Public Participation in Local Air Pollution Assessment: A Citizen Participation Prototype from Zarqa Governorate, Jordan. Journal of Environmental Engineering Science. Vol. 25(4), pp. 451-459. **DOI: 10.1089/ees.2007.0066**
17. Hamdi, M., **Bdour** A., and Zeyad S. Tarawneh (2008). Developing Reference Crop Evapotranspiration Time Series Simulation Model Using Class A Pan: A Case Study for the Jordan Valley /Jordan. Jordan Journal of Earth and Environmental Sciences (JJEES), Vol. 1(1), pp. 33-44.

18. Zeyad S. Tarawneh, Nidal A. Hadadin and Ahmad N. **Bdour**, (2008). Policies to Enhance Water Sector in Jordan. American Journal of Applied Sciences, Vol. 5 (6), pp. 698-704. [ISSN 1546-9239](#)
19. **Bdour** A. Altrabsheh B., Hadadin N., and Al-Shareif M. (2007). Assessment of Medical Wastes Management Practice: A Case Study of the Northern Part of Jordan. Journal of Waste Management. Vol. 27, pp. 746-759. [doi:10.1016/j.wasman.2006.03.004](#)
20. Nidal Hadadin and Ahmed **Bdour** (2006). Investigation of the Brownlie (1981) Sediment Transport Equation in Open Channels. European Journal of Scientific Research, Vol. 13(2), pp. 258-266
21. **Bdour** A., and N. Hadadin, (2005). Potentials and Limitations of Wastewater Reuse in Jordan: The Reuse options in the Jordan Valley. Journal of Agronomy, 4(4), pp. 315-322.
22. Hadadin, N., and A. **Bdour**, (2005). At-station Hydraulic Geometry for Incised Channels. Journal of Applied Sciences, 5(9), pp. 1606-1612.
23. Papanicolaou, A.N., **Bdour**, A., and Weickin, E. (2004). One dimensional hydrodynamic/sediment transport model applicable to steep mountain streams. Journal of International Association of Hydraulic Research, 42 (4), pp. 357-375.
24. Papanicolaou, A.N., and **Bdour**, A., (2004). A Theoretical Travel Time Based on Watershed Hypsometry. Journal of the American Water Resources Association (JAWRA), 40(5), pp. 1385-1387.
25. Papanicolaou, A., **Bdour**, A., Evangelopoulos, N., and Talebbeydokhti, N., (2003). Watershed and Instream Impacts on the Fish Population in the South Fork of the Clearwater River, Idaho. Journal of the American Water Resources Association (JAWRA), 39 (1), pp. 191-203.

REFEREED CONFERENCE PROCEEDINGS.

1. Ahmed **Bdour** (2017). Infectious Hazards of Hospital Staff Exposure Risks and Awareness to Poor Medical Waste Management. The 2017 International Conference on Energy, Environment, Development and Economics, (EEDE 2017) in Heraklion, Crete, Greece, July 14-17, 2017
2. Ahmed **Bdour** (2016). Application of Wireless Sensor Networks in Marine Ecosystem, International Conference on Innovation and Management (IAM2016S), July 12-15, 2016. Kuala Lumpur, Malaysia.
3. Ahmed **Bdour**, Tarawneh Z., and Almomani Thakir (2015). Real-Time Remote Monitoring (RTRM) of Selected Water Quality Parameters In Marine Ecosystem Using Wireless Sensor Networks. Proceedings of The 14 The International Conference on Environmental Science And Technology Rhodes, Greece, 3-5 September 2015.
4. Ahmed **Bdour** (2013). Analysis of Hospital Staff Exposure Risks and Awareness to Poor Medical Waste Management in the Tabuk Regional Healthcare System. International Conference

on Environmental, Biological and Ecological Sciences, and Engineering *EGM, Trieste, 28-29 Nov. Paris*

5. Ahmed **Bdour** (2012). Study of knowledge, awareness and practices of infection control among Hospital staff. The *WEI International Academic Conference*, Orlando, USA 2013
6. Ahmed **Bdour** and Thanos Papanicolaou (2008). Integrated watershed modeling tools. 3rd International Conference on Water Resources and Environment in Arid regions. Riyadh, Kingdom of Saudi Arabia, 16-19 Nov. 2008.
7. Ahmed **Bdour**, Moshrik Hamdi, and Moa'yyad Shawaqfeh (2006). Wastewater treatment technologies and reuse in the urban areas of the Mediterranean region. MEDA WATER International Conference on Sustainable Water Management Rational Water Use, Wastewater Treatment and Reuse, RUWTR 2006
8. **Bdour**, A. and A.N. Papanicolaou (2005). Resolving the scale integration dilemma in watershed modeling. The 8th international Conference on Fluvial Sedimentology Proceedings. Delft, The Netherlands, 7-12, August, 2005.
9. **Bdour**, A. and A.N. Papanicolaou (2003). The coupling of a two-dimensional hydrodynamic/sediment transport model with an upland erosion model in a mountain watershed. ASCE Engineering Mechanics Conference Proceedings. Seattle, WA, USA, June 2003.
10. **Bdour**, A., A. N. Papanicolaou, N. Evaggelopoulos (2002). Watershed Impacts on the Fish Population in The Clearwater River, ID. 9th International Conference on Urban Drainage, ASCE Conference. Portland, Oregon, USA, 2002
11. **Bdour**, A., A. N. Papanicolaou, and N. Talebbeydokhti (2001). Comparison of Watershed Macroscale Approaches against Microscale for the South Fork Clearwater River, Idaho. Environmental and Water Resources Institute's (EWRI's) World Water & Environmental Resource Conference, Florida, Orlando, FL, USA, May 20-24, 2001

INSTITUTIONAL AND PROFESSIONAL SERVICE:

- Committee member of Water and Environment Sector, Scientific Research Support Fund, Ministry of Higher Education
- Committee member, Desalination Directorate Board, Ministry of Water and Irrigation
- Coordinator, HU 4MWp canopy and carparks project.
- Member of the editorial board, Jordan Journal of Civil Engineering
- Member of the editorial board, Journal of Environmental and Agricultural Sciences (JEAS)
- Reviewer for Global NEST Journal
- Affiliated Member in Coasts, Oceans, Ports, and Rivers Institute (COPRI)-USA
- Member, Scientific Committee ISWA Solid Waste World Congress 2015
- Member, Committee of Preparing Tender for Design and Supervision for Structural Lab (SSL)
- Member, University Council at the Hashemite University, Academic Year 2013–2014.
- Member, International Scientific Committee of International Conference on Env, Water, & Energy

UNIVERSITY ACTIVITIES

College of Engineering Activities

- Coordinator of the academic committee of the faculty of engineering.
- Member of post graduate studies committee of the faculty of engineering.
- Member of the ABET academic committee of the faculty of engineering.

Departmental Activities

- Coordinator of the Scientific groups, CE. Department.
- Coordinator of the Lab Committee, CE Department.
- Coordinator of the ABET accreditation committee, CE Department.
- Coordinator of the ABET accreditation committee, College committee.
- Coordinator of the Academic Committee.
- Member of the student registration Committee.

Faculty Development Programs during last six years

- Participated in the development of the new study plan (152 hours), of the CE department and the engineering college of The Hashemite University, Jordan.
- ABET accreditation activities in CE department and the College.
- Participated in the development of the study program of the CE department of The Hashemite University, Jordan.

WORKSOPS

1. International Standards ISO 14001 and OHSAS 18001 Environmental management systems Requirements with guidance for use. Amman, Jordan, 12-15 Dec. 2007.
2. Safe Management of medical, chemical and pharmaceutical wastes. 29-30 November, 2004. National Institute for Environmental Training. Riyadh, Saudi Arabia. Main Lecturer
3. The Second German-Arabic Industrial Wastewater workshop, Detmold, Germany, Sept 20-25th, 2004

REPORTS:

1. Guidelines for the safe management of medical; chemical, pharmaceutical wastes. National Institute for Environmental Training, Riyadh, Saudi Arabia, 2004.

ONGOING PROJECTS

1. Characterization and innovative management solutions for the brine discharged from HU brackish water desalination plant. R&D Support, Higher Council of Science and Technology.
2. Development of Specifications for Urban Wastewater Utilization in Jordan.
3. Potential Implementation of A membrane Pilot Project for Recycling Reclaimed Wastewater at The Hashemite University.
4. Involving the public in local air pollution assessment: a citizen participation case study in the Zarqa Governorate. Funded by the Hashemite University

AREAS OF CURRENT TEACHING INTEREST

COURSES TAUGHT AT THE UNIVERSITY OF TABUK

- ❑ **CE371 FLUID MECHANICS**
- ❑ **CE 561 Water Resources Engineering**
- ❑ **CE 354 Hydraulics**
- ❑ **CE 454 Wastewater Engineering**

COURSES TAUGHT AT THE HASHEMITE UNIVERSITY

- ❑ **401355 Water Supply and Wastewater Engineering**
- ❑ **403301 Engineering Workshops**
- ❑ **401102 Engineering Drawing**
- ❑ **401103 Computer Aided Engineering Drawing**
- ❑ **1203412 Water Resources Planning and Management**
- ❑ **0401211 Wastewater Engineering**
- ❑ **401351 Hydraulic Engineering**
- ❑ **401352 Hydraulics Laboratory**
- ❑ **803423 Water Supply Engineering**
- ❑ **401354 Surface Hydrology**

COURSES TAUGHT AT WASHINGTON STATE UNIVERSITY AND THE UNIVERSITY OF IOWA (2001-2003)

- ❑ Spring 2001: **Physical and chemical processes**
- ❑ Fall 2001: **Hydraulics Lab.**
- ❑ Spring 2002: **Open Channel flow**
- ❑ Fall 2002: **Fluid Mechanics.**
- ❑ Spring 2003: **Statistics and Sediment Transport**

PROPOSALS:

1. Microorganism-Based Bioenergy: A Sustainable Solution to Energy Insecurity in the Middle East.
2. Assessing Gray Water Reuse Potential In Urban Areas for Sustainable Water Resources Management in Jordan. Submitted to the International Foundation for Science (IFS), Sweden
3. Potential application of membrane technologies for wastewater reclamation and reuse in Jordan. Submitted to Arab Science Foundation, UAE

4. Evaluation of medical wastes management practice: a case study of the middle part of Jordan. Submitted to Deanship of Graduate Studies and Scientific Research, the Hashemite University.

THESIS COMMITTEES/ SUPERVISING

Behavior of medium plasticity clays under cyclic loads, Jordan University of Science and Technology, Jordan, 2018.

Development of design criteria for the construction of four retention dams in Wadi Madoneh, Jordan, Mu'tah University, Karak, Jordan, May 2008

Groundwater resources management in Al-Jafer basin using modeling tools. Mu'tah University, Karak, Jordan, 2007

Hydrodynamic and water quality in King Talal Reservoir: A modeling approach, Jordan University of Science and Technology, Irbid Jan. 2008 (External Committee member)

Water and Sediment Yield for Wala Dam Catchment Area, Mu'tah University, Karak, Jordan, Dec. 2007 (External Committee member).

Groundwater recharge modeling in Zarqa Basin. Jordan University of Science and Technology. Irbid, Jordan, Jan. 2006 (External Committee member)

Evaluation of Vehicle emissions as one of the main contributors to air pollution. Mu'tah University, Karak, Jordan, Dec. 2007 (External Committee member).

Using The hydrological Models (HSPE & SWAT) in The Management of A Semi Arid Watershed. Jordan University of Science and Technology. Irbid, Jordan, Jan. 2006 (External Committee member)

PRESENTATIONS AT PROFESSIONAL MEETINGS

Real-Time Remote Monitoring (RTRM) of Selected Water Quality Parameters In Marine Ecosystem Using Wireless Sensor Networks Proceedings Of The 14 The International Conference On Environmental Science And Technology Rhodes, Greece, 3-5 September 2015

Enhancing Public Participation in Local Air Pollution Assessment: A Citizen Participation Prototype from Zarqa Governorate, Jordan. Desert Research Institute, Las Vegas, USA. 2007.

Environmental Management Challenges in Arab Cities and Municipalities and Their Possible Solutions Using Modern Technologies. New Perspectives in Planning and Management of Large Cities Conference. Amman, Jordan, 11-15 Nov. 2007

Potential Application of Membrane Technologies for Wastewater Reclamation and Reuse in Jordan. MEDAWARE Workshop, Urban Wastewater Treatment Technologies and Reuse Amman, Jordan, June 29-30,2005.

The coupling of a two-dimensional hydrodynamic/sediment transport model with an upland erosion model in a mountain watershed. ASCE Engineering Mechanics Conference Proceedings. Seattle, WA, USA, June 2003

Watershed Impacts on the Fish Population in The Clearwater River, ID. 9th International Conference on Urban Drainage, ASCE Conference. Portland, Oregon, USA, 2002

Comparison of Watershed Macroscale Approaches against Microscale for the South Fork Clearwater River, Idaho. Environmental and Water Resources Institute's (EWRI's) World Water & Environmental Resource Conference, Florida, Orlando, FL, USA, May 20-24, 2001