

## PROFILE SUMMAY

For  
Jamal Abu-Ashour

Jordan University of Science and Technology  
P.O. Box 3030, Irbid 22110, Jordan

Email: jamals@just.edu.jo

- I am a professor of water resources and environmental engineering in the Department of Civil Engineering at Jordan University of Science and Technology. I earned a Ph.D. in water and environmental engineering in 1994 from the University of Guelph/Canada.
- My experience in teaching and research extends over 29 years. I taught several courses ranging from basic undergraduate to advanced graduate courses in Water Resources, and Environmental Engineering. In addition to the teaching and research responsibilities, I have appreciable industrial experience through providing consultations and training for several public and private sector organizations at both national and regional levels. I am also a certified lead environmental auditor and have several experiences in auditing ISO 14001 EMS.
- In research, I conduct experimental research leading to several publications in respectable journals in my field. I participated in many conferences in Jordan, Oman, Canada, USA, Saudi Arabia, and Turkey. I maintained good working relations with several scientists in Canada, USA and Europe.
- In consultation, I was selected as the national consultant for the development of a national proposal as a part of a global proposal addressing the adaptation to climate change to protect human health. The proposal was praised by the international assessors. The Global Environment Facility (GEF) funded this project with a value of €750,000.
- I worked as a consultant for the United Nations Organizations; UNDP, WHO/CEHA, UNESCO, and FAO to prepare a joint program document for a \$4,000,000 project on adaptation to climate change to sustain Jordan's MDG achievements. The funding for this project was granted by the Spanish MDG Fund.
- I worked as an international expert on climate change for the UNDP office in Libya. The work involved conducting a National Capacity Self-Assessment for

the implementation of the United Nation Framework Convention on Climate Change (UNFCCC).

- Recently, I reviewed and translated Jordan's first biennial update report submitted to the UNFCCC. I also led a team to implement a UNDP and Government of Canada funded project in Northern Jordan Valley. The project budget is USD200,000 targeting facilitation of women engagement in waste recycling and reuse business.
- I also have administrative experience for more than eight years. I served six years as the Director of Queen Rania Center for Environmental Sciences and Technology. It is a scientific center having more than a hundred researchers in the areas of water, environment and energy working under the umbrella of the center on research as well as providing consultations. This position gave me great experience to prepare and negotiate agreements with international donors as well as management of the finance of supported projects implemented in the center.
- I was also a chair of the Department of Bio-systems Engineering and the Vice Dean in Jordan's biggest Engineering College for two years.

# JAMAL ABU-ASHOUR

Department of Civil Engineering • Jordan University of Science and Technology  
P.O. Box 3030 • Irbid • 22110 • Jordan

Telephone: Office: (962) 7201000 Ext. 22122 Mobile: (962)  
795405279 E-mail jamals@just.edu.jo



## EDUCATION

### UNIVERSITY OF GUELPH

*Ph.D., Water and Environmental Engineering 1994*

*Thesis: Movement of Agricultural Wastewater Bacteria through the Soil Matrix and Macropores.*

### JORDAN UNIVERSITY OF SCIENCE AND TECHNOLOGY

*M.Sc., Civil Engineering 1990*

*Thesis: Optimization of Phenol Removal in Carbon Media by Chemical Pretreatment of Carbon.*

### YARMOUK UNIVERSITY

*B.Sc., Civil Engineering 1986*

*Projects: Design of Wastewater Disposal Systems, Design of Wastewater Treatment Plant, Design of Storm Sewers for the City of Irbid.*

## EXPERIENCE

### JORDAN UNIVERSITY OF SCIENCE AND TECHNOLOGY - JORDAN

- *Professor, August 2017 - present*
- *Associate Professor, December 2004 - March 2018*
- *Assistant Professor, September 2003 - December 2004*

### JORDAN UNIVERSITY OF SCIENCE AND TECHNOLOGY - JORDAN

- *Director of Queen Rania Al-Abdullah Center for Environmental Sciences and Technology  
September 2016 - September 2022*

### JORDAN UNIVERSITY OF SCIENCE AND TECHNOLOGY - JORDAN

- *Vice Dean of Engineering, September 2009 - September 2011*
- *Head of Biosystems Engineering Department, September 2009 - September 2010,  
and September 1999-February 2000*

### SULTAN QABOOS UNIVERSITY - SULTANATE OF OMAN

- *Assistant Professor of Civil Engineering, February 2000 - September 2003*

JORDAN UNIVERSITY OF SCIENCE AND TECHNOLOGY – JORDAN

- *Head of Department of Agricultural Engineering and Technology, September 1999- February 2000*
- *Assistant Professor, September 1994- February 2000*

UNIVERSITY OF GUELPH - CANADA

- *Graduate Student and Teaching and Research Assistant, August 1991 - September 1994*

MINISTRY OF MUNICIPALITIES - JORDAN

- *Urban Planning Engineer, March 1991 - August 1991*

JORDAN UNIVERSITY OF SCIENCE AND TECHNOLOGY - JORDAN

- *Graduate Student and Teaching Assistant, September 1988 - November 1990*

JORDAN ARMY - JORDAN

- *Manager of a Wastewater Treatment Plant, September 1986 - September 1988*

WATER AUTHORITY - JORDAN

- *Engineer Under Training, May 1986 - September 1986*

UNIVERSITY COURSES TAUGHT

- Engineering Drawing
- Fluid Mechanics
- Hydraulics
- Water Resources
- Water Conveyance
- Groundwater
- Wastewater Treatment
- Transport Phenomena
- Engineering Economy
- Numerical Methods for Engineers
- Applied Mathematics for Engineers
- Fluvial Hydraulics
- Mathematical Hydrology
- Hydrology
- Basic Mechanics
- Treatment and Reuse of Polluted Water
- Biosolid Waste Management
- Statics
- Sanitary Engineering

- Contaminant Transport in the Environment
- Hydraulics and Hydrology
- Environmental Engineering I
- Environmental Engineering II
- Design of Environmental and Wastewater Systems
- Wastewater Engineering
- Chemistry for Environmental Engineers

### TRAINING COURSES ATTENDED

- Technology of Education and Evaluation, Jordan University of Science and Technology, September 1997.
- Modern Education Tools, Jordan University of Science and Technology February 1999.
- Environmental Management Systems (ISO 14000). Jordan Export Development & Commercial Centers Corporation, March 1998.
- Training of Trainers. Jordan Institute for Public Administration, April 1998.
- Environmental Management System (ISO 14000). King Hussein Environmental Management Training Program, April 1998.
- Environment Audit Trainers Technical Upgrading Program, World University Service of Canada, June 1998.
- Advanced EMS Auditor Course. Environmental Auditors Registration Association EARA, October 1998.
- National CDM Workshop, World Bank, Amman, December 2006

### TRAINING COURSES DELIVERED

- Domestic and Industrial Wastewater Treatment Technology. Jordan University of Science and Technology, December 1997.
- Environmental Auditing, Skills and Techniques. King Hussein Environmental Management Training Program, Jordan University of Science and Technology, November 1998.
- Environmental Auditing, Skills and Techniques. King Hussein Environmental Management Training Program, Royal Scientific Society, March 1999.
- Design and Management of Wastewater Treatment Plants. Amra Hotel, Amman - Jordan, April 1999.

- Environmental Auditing, Skills and Techniques. King Hussein Environmental Management Training Program, Palestinian National Authority, Gaza, August 1999.
- Environmental Auditing, Skills and Techniques. Aqaba Region Authority, Aqaba - Jordan, January 2000.
- Alternative Water Supply. Jordan University of Science and Technology, August 2004.
- Overview of Environmental Impact Assessment and Environmental Auditing, for UNDP-Iraq, October 2009
- Overview of Environmental Impact Assessment and Environmental Auditing, for UNDP-Iraq, December 2009

## CONSULTATIVE WORK

- Evaluation of alternative industrial wastewater treatment plant for Jordan vegetable Oil Company, Jordan
- Environmental auditing of Amman Grand Flour Mills, Jordan
- Environmental auditing of Modern Paints & Chemical Industries, Jordan
- Environmental auditing of Allied Chemical Manufacturing and Trading Company, Jordan
- Environmental auditing of International Silica Industries, Jordan
- Environmental auditing of Aqaba Main Port, for Aqaba Development Corporation, Jordan
- Environmental auditing of Aqaba Container Port, for Aqaba Development Corporation, Jordan
- Environmental auditing of Aqaba Industrial Port, for Aqaba Development Corporation, Jordan
- Environmental auditing of three animal protein factories in Khaldeyya, Jordan
- Environmental auditing of Arab Cardboard Manufacturing Company, Amman, Jordan
- Environmental auditing of Petra Food Industries Company, Amman, Jordan
- Environmental auditing of National Chlorine Company, Amman, Jordan
- Environmental auditing of National Poultry Company, Qatraneh, Jordan
- Environmental auditing of Issa Rjoub Company for asphalt production, Samad, Irbid, Jordan
- Environmental Site Assessment for Dubai Modern School according to ASTM standards
- Environmental Site Assessment for GEMS World Academy, Dubai, according to ASTM standards

- National Consultant for the Health and Environment Linkage Initiative project (HELI) to develop guidance on the minimum water requirement for health. WHO funded project.
- National Consultant for GEF/UNDP/WHO Project on “Piloting Climate Change Adaptation to Protect Human Health in Jordan” Grant Approved for \$1,000,000
- National Consultant for UNDP/WHO/FAO/UNESCO to prepare a joint on document on “Adaptation to Climate Change to sustain Jordan’s MDG Achievements”. Grant Approved for \$4,000,000
- National Consultant for the UNDP to prepare the “National Circumstances” Chapter in the Second National Communication to the UNFCCC
- International Expert on Climate Change to assist Libya in the implementation of the United Nation Framework Convention on Climate Change (UNFCCC), UNDP Office, Tripoli, Libya
- External assessor for the business plan of the Royal Scientific Society
- Technical translator to Arabic of Jordan's First Biennial Update Report to the UNFCCC
- Consultant for ESCWA to prepare the inventory of green technologies in the Arab world.

## HONORS

- Yarmouk University Honor List.
- Jordan University of Science and Technology Scholarship (to pursue graduate studies).
- University of Guelph Fellowship.
- King Hussein Environmental Management Training Program (KHEMTP) scholarship to become an Audit Trainer.

## ASSOCIATIONS, COMMITTEES AND COUNCILS

- American Society of Civil Engineers
- Jordan Engineers Association
- Jordan Environment Society
- National Environment and Wildlife Society
- Executive Board of the National Environment and Wildlife Society, 1998-2000
- Faculty of Engineering Council, JUST, 1996-1997
- University Council, JUST, September 1998-September 1999

- Organization Committee for the Regional Symposium on Irrigation Management and Saline Conditions, 1999.
- Steering Committee for the Environment Center, Sultan Qaboos University, 2001-2003.
- National Committee for the remediation and control of oil spills in Oman, Ministry of Water and Environment, Oman, 2001-2003.
- International Advisory Board for the International Association for Management of Technology Conference (IAMOT 2008), Hosted by the British University in Dubai, UAE.
- National Technical Committee for Environmental Impact Assessment, 2009-2010.   ▪ National Committee for updating the National Environmental Agenda 2011.

## PUBLICATIONS

### REFERRED JOURNALS

1. Abu-Ashour, J., D.M. Joy, H. Lee, H.R. Whiteley, and S. Zelin. 1994. Transport of Microorganisms through Soil. *Water, Air and Soil Pollution*. Vol 75, pp. 141-158.
2. Abu-Ashour, J., D.M. Joy, H. Lee, H.R. Whiteley, and, S. Zelin. 1998. Movement of Bacteria in Heterogeneous Soil Columns. *Transactions of the ASAE*. Vol. 41(4) pp. 1043-1050.
3. Al-Jalil, H.F., J. Abu-Ashour, and K. Al-Omari. 1999. Comparing the Suitability for Mechanical Harvesting of Two Olive Cultivars. *AMA*. Vol. 30, pp. 38-40.
4. Saadoun, I., M. Al-Akras, and J. Abu-Ashour. 1999. Bacterial Degradation of Hydrocarbons as Evidenced by Respirometric Analysis. *MICROBIOS* Vol. 100, pp. 19-25.
5. Abu-Ashour, J., and H. Lee. 2000. Movement of Bacteria on Sloping Soil Surfaces by Runoff. *Environmental Toxicology*, Vol. 15, No. 2, pp. 149-153
6. Abu-Hamdeh, N., J. Abu-Ashour, H. Al-Jalil, A. Khair, and R.C. Reeder. 2000. Soil Physical Properties and Infiltration Rate as Affected by Tire Dynamic Load and Inflation Pressure. *Transactions of the ASAE*. Vol. 43(4) pp. 785-792.



7. Abu-Ashour, J., and A.B. Shahalam. 2002. Water Infiltration through Diesel Contaminated Soil. *Journal of Environmental Science and Health, Part A*, Vol. A37, No. 6.
8. Al-Harthy, A., R. Taha, J. Abu-Ashour, K. Al-Jabri, and S. Al Orami. 2004. Effect of Water Quality on the Strength of Flowable Fill Mixtures. *Cement and Concrete Composites*, Vol. 27 (2005), pp. 33-39.
9. Abu-Zreig, M., and J. Abu-Ashour. 2004. Chloride and Atrazine Transport through Saturated Soil Columns. *Toxicological and Environmental Chemistry*, Vol. 86(3), pp. 181-190.
10. Abu-Ashour, J., and M. Abu-Zreig. 2005. Effect of Interstitial Velocity on the Adsorption of Bacteria onto Soil. *Adsorption Science and Technology*, Vol. 23(7), pp. 535-542.
11. Mughieda, O., and J. Abu-Ashour. 2006. Use of Dust Waste from Grain Storage Facilities for Soil Stabilization and Moisture Retention. *Journal of Solid Waste Technology and Management*, Vol 32 (1), pp. 18-27.
12. Al-Sharif, M., J. Abu-Ashour, A. Abulaban, and S. Al-Shar'a. 2007. Effect of Soil-Water Separation Technique on the Estimation of Bacterial Adsorption onto Soil. *Jordan Journal of Civil Engineering*, Vol. 1(3), 295302.
13. Abu-Ashour, J., and A. Jamrah. 2008. Survival of Bacteria in Soil Subsequent to Greywater Application. *International Journal of Environmental Studies*, Vol. 65(1), pp. 51-56.
14. Abu-Ashour, J. and M. Al-Sharif. 2010. An Investigation of the Linkage between Minimum Household Water Requirement and Health in the Greater Irbid Area. *Jordan Journal of Civil Engineering*, Vol. 4(1), 40-46.
15. Abu-Ashour, J., H. Abu-Qdais, and M. Al-Widyan. 2010. Estimation of Animal and Olive Solid Wastes in Jordan and their Potential as a Supplementary Energy Source: An Overview. *Renewable and Sustainable Energy Reviews*, Vol. 14(2010), pp. 2227-2231.
16. Abu-Ashour, J., and N. Al-Hmoud. 2017. Use of Alum and Grain Dust Waste for the Reduction of Bacterial Transport on Soil Surface. *Applied Engineering in Agriculture*, Vol. 33(1), pp. 91-94.

#### CONFERENCE PROCEEDINGS

1. Joy, D.M., J. Abu-Ashour, J.L. Botari, and C. Etches, H. Lee, C. Sopher, H.R. Whiteley, and S. Zelin. 1992. Microbial Transport in Soils with and

without Macropores. Proceedings of the Technology Transfer Conference, sponsored by the Ontario Ministry of Environment and Energy, Nov. 1992, Toronto, Canada.

2. Abu-Ashour, J., C. Etches, D.M. Joy, H. Lee, H.R. Whiteley, and, S. Zelin. 1993. Movement of Bacteria through the Soil Macropores. Proceedings of the Technology Transfer Conference, sponsored by the Ontario Ministry of Environment and Energy, Nov. 1993, Toronto, Canada.
3. Abu-Ashour, J., D.M. Joy, H. Lee, H.R. Whiteley, and, S. Zelin. 1994. Movement of Bacteria in Soil via Preferential Flow. Proceedings of the Northeast Agr/Bio-Engineering Conference, American Society of Agricultural Engineers, July 1994, Guelph, Canada.
4. Abu-Ashour, J., D.M. Joy, H. Lee, H.R. Whiteley, and, S. Zelin. 1998. Bacteria Movement through Soil Matrix, Macropores and Partially Blocked Macropores. Proceedings of the 1998 ASCE National Environmental Engineering Conference, June 1998, Chicago, U.S.A.
5. Abu-Ashour, J., and H. Lee. 1999. Movement of Bacteria on Sloping Soil Lands via Runoff. Presented at the Annual International Meeting of the American Society of Agricultural Engineers, July 1999, Toronto, Canada.
6. Baawain, M., and J. Abu-Ashour. 2002. Sustainability of Groundwater in Salalah Catchment Area, Sultanate of Oman. Proceedings of the International Conference on Sustainable Land Use and Management, June 2002, Canakkale, Turkey.
7. Al-Riyamy, M., M. Al-Aghbari, and J. Abu-Ashour. 2002. Treatment of Sewage Water in Oman University: Case Study on Effluent Quality and Economics. Proceedings of the Second International Conference on Geotechnical and Geoenvironmental Engineering in Arid Lands, October 2002, Riyadh, Saudi Arabia.
8. Qatan, A., and J. Abu-Ashour. 2002. Impact of Treated Wastewater Recharge in Salalah Coastal Aquifer on Groundwater Quality. Proceedings of the International Conference on Wastewater Management and its Effects on the Environment in Hot and Arid Countries, October 2002, Muscat, Sultanate of Oman.
9. Hassan, H., R. Taha, A. Al-Rawas, A. Hago, and J. Abu-Ashour. 2004. Use of Petroleum-Contaminated Soils in Asphalt Concrete Mixes. Proceedings of the Fourth Speciality Conference on Environmental Progress in the Petroleum and Petrochemical Industries, May 2004, Manama, Bahrain.
10. Abu-Ashour, J. 2005. A Survey of the Jordanian Public Perception towards the Consumption of Crops Irrigated by Treated Wastewater.

Proceedings of the 33<sup>rd</sup> CSCE Annual Conference, June 2005, Toronto, Canada.

11. Amayreh, J., N. Al-Abed, and J. Abu-Ashour. 2006. Effect of Light Screening on Pistachio Trees Quantum Yield and Productivity. Proceedings of the International Symposium on Water and Land Management for Sustainable Irrigated Agriculture, April 2006, Adana, Turkey.
12. Abu-Ashour, J. 2006. Economic and Environmental Benefits of Agricultural Water Use Efficiency Measures in Jordan. Proceedings of the International Conference on Economic Incentives and Water Demand Management, March 2006, Muscat, Oman.
13. Abu-Ashour, J. 2008. Environmental and Health Risks Associated with Locally Practiced Reuse and Recycling of Waste in Jordan. Proceedings of the International Conference on Waste - The Social Context 08, May 2008, Edmonton, Canada.
14. Abu-Ashour, J. 2012. Analysis of Approaches to Determine Minimum Water Requirement for Healthy Household Environment. Proceedings of the 12<sup>th</sup> International Environmental Specialty Conference (CSCE Conference), June 2012, Edmonton, Canada.
15. Gough, H. L., H. Kosonen, C. Callahan, A. Awawdeh, J. Abu-Ashour, M. Abu-Dalo, and A. A. Kim. 2016. Wastewater treatment at a Syrian refugee camp: Impacts of shifting operational scenarios on system performance. Gordon Research Conference, Environmental Sciences: Water, Holderness, NH, USA.
16. Abu-Ashour, J., and H. Al-Hussein. 2016. Minimum water requirement for sustainable healthy life in rural areas of northern Jordan. Proceedings of the CSBE/SCGAB Annual General Meeting and Technical Conference, Halifax, Canada
17. Abu-Ashour, J. 2017. The Road Map of Jordan University of Science and Technology towards Sustainability. Proceedings of the 3<sup>rd</sup> International Workshop on UI GreenMetric, Istanbul, Turkey

## SELECTED INVITED PRESENTATIONS

1. Overview of ISO 14001 Standards. Opening presentation at the National Workshop for Good House Keeping, 1999, Amman, Jordan.

2. The ISO 14000 Series. Presented at the Asian Oil and Gas Exhibition, 2000, Muscat, Oman.
3. The National Environmental Law of Oman. Presented for the Shoura (Parliament) Council of Oman, 2000, Muscat, Oman.
4. Groundwater Pollution Risks in Oman. Presented for the State Council of Oman, 2003, Muscat, Oman.
5. Water Use Efficiency Measures. Presented at the National Workshop for the Health and Environment Linkages Initiative (HELI) Project. World Health Organization (WHO), 2005, Amman, Jordan.
6. HELI Analysis Applied to Wastewater Reuse Policy. Presented at the Regional Workshop for the Health and Environment Linkages Initiative (HELI) Project. World Health Organization (WHO), 2005, Amman, Jordan.
7. Research Priorities on Health Adaptations to Climate Change.  
Presented at the Regional Workshop on Adaptation Strategies to Protect Health under Climate Variability and Change in Water Stressed Countries in Eastern Mediterranean Countries, World Health Organization (WHO), 2006, Amman, Jordan.
8. Log Frame Analysis for a UNDP-GEF-WHO Project on Piloting Climate Change Adaptation to Protect Human Health, February 2007, Amman, Jordan.
9. Effect of Climate Change on Water Quality. Jordanian Engineers Association Workshop, February 2008, Amman, Jordan
10. Negative Impacts of Climate Change and Adaptation Strategy. Greater Amman Municipality Environment Day, April 2008, Amman, Jordan
11. Effect of Salinity on BOD Testing of Wastewater, Kuwait Institute for Scientific Research (KISR), April 2013, Kuwait City, Kuwait