Brief

Dr. Hani Abu Qdais is a Professor of Environmental Engineering at the Civil Engineering Department of Jordan University of Science and Technology (JUST). He has obtained his PhD. From University of Newcastle, UK. Having more than 30 years of diverse experience in public, private and academic sectors, Dr. Abu Qdais has obtained more than 3 million US\$ of fund for his research and consultation projects. He has published more than 60 papers in international refereed journals and proceedings of international conferences (H Index: Scopus = 24, Google Scholar = 32). Most of his publications and projects are focusing on sustainable waste and water management, Waste to energy, Climate change and Circular Economy. In 2021, 2022 and 2023 Professor Abu-Qdais was listed among the World's top 2% Scientist by Stanford University. Furthermore, in 2015, he has been awarded Shoman award for Arab Scientist in the field of Waste Management. Prof. Abu Qdais has served as a consultant for several national and international agencies, such as the Ministry of Local Administration, Ministry of Environment, UNDP, GIZ, USAID, WHO, IDRC, FAO,

Personal

Date of Birth: October, 30, 1958

Place of Birth: Irbid-Jordan

Nationality: Jordanian

Postal Address: P.O.Box 3030, Irbid, 22110, Jordan

SIDA, EU and projects funded by the World Bank.

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AWARDS & Honors

- > Jordan University of Science and Technology Award for distinguished researchers
- Shoman Award of Arab Researchers in the field of Solid Waste Management
- Listed among the World's top 2% Scientist by Stanford University.
- Al-Farabi Medal from Kazakh State University, Kazakhstan.

Education

- 1- **Doctor of Philosophy** in Environmental Engineering, University of Newcastle upon Tyne, UK,1998,
- 2- **Master of Science** in Water Resources & Environmental Engineering, Jordan University of Science and Technology, Jordan, 1987,
- 3- **Bachelor of Science** in Civil Engineering, Kharkov Institute for Municipal Engineers, Kharkov, USSR, 1982.

Experience

- 2013 2016, Assistant to The President, Jordan University of Science&Technology
- 2- **2008-2013**, Director, Queen Rania Al Abdalla Centre for Environmental Science & Technology, Jordan University of Science & Technology
- 3- **2006-2008**, Dean of Scientific Research and Graduate Studies, German Jordanian University
- 4- **2010 to Present,** Professor of Water & Environmental Engineering, Civil Engineering Department, Jordan University of Science & Technology
- 5- **2005-2010**, Associate Professor of Water & Environmental Engineering at the Civil Engineering Department, Jordan University of Science & Technology
- 6- **2000-2005**, Assistant Professor of Water & Environmental Engineering at the Civil Engineering Department, Jordan University of Science & Technology

- 7- **1998-2000**, Executive Director, Jouzy & Partners Consulting Engineering Bureau, Abu Dhabi, UAE.
- 8- **1996-1998**, Research Assistant in Environmental Engineering, University of Newcastle upon Tyne, UK
- 9- **1994-1996**, Head of Water Transmission and Distribution Projects, Water & Electricity Department, Abu Dhabi-UAE
- 10- 1990-1993, Resident Engineer at Power and Water Plant Project, ToshibaCorporation, Abu Dhabi, UAE
- 11- **1984-1990**, Environmental Engineer, Ministry of Municipal, Rural and Environmental Affairs (Ministry of Local Administration), Jordan
- 12- **1982-1984**, Civil Engineer, Jordanian Armed Forces

Courses Taught

Undergraduate Level

- 1. Environmental Engineering
- 2. Sanitary Engineering
- 3. Hydraulics
- 4. Environmental & Sanitary Engineering Laboratory
- 5. Hazardous and Solid Waste Engineering
- 6. Water and Wastewater Systems Design
- 7. Introduction to Environmental and Energy Engineering
- 8. Water Management in the Middle East
- 9. Environmental Geology
- 10. Water Resources Management
- 11. Environmental Impacts Assessment
- 12. Special Topics in Water & Environmental Engineering

Graduate Level

1. Wastewater Engineering

- 2. Industrial and Hazardous Waste Management
- 3. Chemistry for Environmental Engineers
- 4. Strategic Planning in Water Demand Management
- 5. Integrated Water Resources Management
- 6. Climate Change and Water Resources

Publications

Publications Related to Waste Management & Circular Economy

- 1. **Abu Qdais H. A.**, Hamoda M.F. and Newham J. (1997) Analysis of Residential Solid Waste at Generation Sites, Waste Management and Research, v. 15, pp 395-406.
- 2. Hamoda M.F. **Abu Qdais H. A.,** and Newham J. (1998) Evaluation of Municipal Solid Waste Kinetics, Resources Conservation and Recycling, v. 23, pp 209-223.
- 3. **Abu Qdais H.A.,** and Anderson G.K. (1998) A Low Cost Method for Municipal Solid Waste Characterization in Abu Dhabi. Third Swedish Landfill Symposium, Lulea, Sweden, October 1998.
- 4. M. Abu-Qudais and **Abu Qdais H. A.**, (2000) Energy Content of Municipal Solid Waste in Jordan and its Potential Utilization, Energy Conservation and Management, 41 pp 983-991
- 5. M.F. Hamoda and **Abu Qdais H. A**. (2003) Bench Scale Composting of Some Salt Tolerant Plants, Technology, Vol. 8, pp 79-87
- 6. **Abu Qdais H. A**. Hamoda M.F. (2004), Enhancement of Carbon and Nitrogen Transformations during Composting of Municipal Solid Waste, Journal of Environmental Science and Health Part A 39(2):409-20.
- 7. O. Al-Jarrah and **Abu Qdais, H. A**. (2006) Municipal Solid Waste Landfill Sitting Using Intelligent System, Waste Management, 26, pp 299-306
- 8. **Abu Qdais H. A**. (2007) Techno Economic Analysis of Municipal Solid Waste Management in Jordan, Waste Management, 27, pp 1666-1672
- 9. **Abu Qdais H. A**, Abdulla F. and Rabi A. (2007), Characteristics of Medical Waste Generated at Jordanian Hospitals, Clean Technology and Environmental Policy, 9,

pp 147-152

- 10. Abdulla F., **Abu Qdais H.** and Rabi A. (2008), Site Investigation on Medical Waste Management Practices in Northern Jordan, Waste Management 28, pp. 450-458.
- 11. **Abu Qdais H**. Abdulla F. and Qrenawi L. (2008) Simulation of Leachate Production from An Arid Solid Waste Landfill Using (HELP) Model, The Journal of Solid Waste Technology and Management, V 34, No.3, pp 59-65
- 12. **Abu Qdais H. A**. and Alsheraideh A. A. (2008) Kinetics of Solid Waste Biodegradation in Laboratory Lysimeters, Journal of Civil Engineering, 2, pp 45-51.
- 13. **Abu Qdais H. A** Abdulla F. and Luay Qrenawi (2010) Solid Waste Landfills as A source of Green Energy: Case Study of Al Akeeder Landfill, Jordan Journal of Mechanical and Industrial Engineering, 4(1), pp 69-74.
- 14. **Abu Qdais H. A,** Bani Hani K. and Shatnawi N. (2010) Modelling and Optimization of Biogas Production from A Waste Digester using Artificial Neural Network and Genetic Algorithm, Resources Conservation and Recycling, 54, pp 359-363
- 15. **Abu Qdais H**. **A** (2010) Selection of Landfill Leachate Management Strategies Using Decision Support Systems, The Journal of Solid Waste Technology and Management, v 36, No. 4 pp 246-257.
- 16. Abu Dalo M. A., **Abu Qdais H.A**., Abu Qudais M. M. and Hull A.P. (2010) Learning Styles in Environmental Engineering Education at Jordanian Universities: A Comparative Study, Journal of Institutional Research South East Asia, v. 8, No. 2, pp 76-89.
- 17. Abu Ashoor J., **Abu Qdais H. A.** and Al Widyan M. (2010) Estimation of Animal and Olive Solid Wastes in Jordan and Their Potential as A Supplementary Energy Source: Overview, Renewable and Sustainable Energy Reviews, 14, pp 2227-2231.
- 18. Mohamad I. Al-Widyan, Rami J. Oweis, **Hani Abu-Qdais**, Mutaz Al-Muhtaseb, Sa'd Hamasha (2010), Composition and Energy Content of Dental Solid Waste, Resources, Conservation and Recycling, Volume 55, Issue 2, December 2010, Pages 155-160.
- 19. Abu-Daabes, M.A., H. **Abu-Qdais**, and H. Alsyouri, "Competitive Adsorption of Nickel, Manganese, Chromium and Cadmium from leachate by Different

- Adsorbents", AIChE 2012 annual meeting, Pittsburgh, PA, Oct. 28th Nov. 2nd
- 20. **Abu Qdais H. A.,** Maqableh A., Nawayseh L. and AL Jamal N. (2012) Energetic and Methane Emission Reduction Potentials from Unsanitary Solid Waste Landfill, Energy Sources, Recovery, Utilization, and Environmental Effects, 34, pp 360–369
- 21. Abu-Daabes M. **Abu Qdais H**. and Alsyouri H. (2013) Assessment of Heavy Metals and Organics in Municipal Solid Waste Leachates from Landfills with Different Ages in Jordan, Journal of Environmental Protection 4, 344-349
- 22. **Abu Qdais H. A**. (2014) E-Waste Management in Jordan, Current Status and Future Prospects, Proceedings of The 3R International Scientific Conference on Material Cycle and Waste Management, Kyoto, Japan 10-12 March, 2014.
- 23. **Abu Qdais H. A.** and Alsharaideh H. A. (2016), Selection of Management Option for Solid Waste from Olive Oil Industry Using the Analytical Hierarchy Process, Journal of Material Cycles and Waste Management, 18, pp 177–185.
- 24. Alsharaideh H. A. and **Abu Qdais H. A.** (2017) Stochastic modeling and optimization of medical waste collection in Northern Jordan, Journal of Material Cycles and Waste Management, 19 pp 743–753.
- 25. **Abu Qdais H. A**., Gibellini S. and Vaccari M. (2017) Managing Solid Waste under Crisis: The Case of Syrian Refugees In Northern Jordan, Proceedings Sardinia 2017 / Sixteenth International Waste Management and Landfill Symposium/ 2 6 October 2017, Margherita di Pula, Cagliari, Italy.
- 26. **Abu Qdais** H. A., Begday I.V., Katorgin I.Y., Shkarlet K. Y., Kharin K.V., A. S. and Likhovid A. A (2018), Assessment of Metals Pollution from Tailing Sites in the North Caucuses Region, Russia, Mine Water and Environment, 37, pp 815–824
- 27. **Abu Qdais H. A**, Begday I.V., and Likhovid A. A (2019) Leachability of heavy metals from stabilized mine waste, Journal of Engineering Research, 7 pp 62-7
- 28. **Abu Qdais H. A**., (2019) Developing a Decision Support Tool for Managing Sludge from Wastewater Treatment Plants in Jordan, Desalination and Water Treatment, 19, pp 95-104.
- 29. Abu Qdais H. A., Wuensh C., Dornack C. and Nassour A. (2019), The role of solid waste composting in mitigating climate change in Jordan, Waste Management and

- Research, 37, pp 833-842, doi.org/10.1177/0734242X19855
- 30. Abu Qdais H. A and Shatnawi N. (2019) Assessing and predicting landfill surface sensing and an artificial temperature using remote neural network, International Journal of Remote Sensing, 40, pp 9556-9571 doi.org/10.1080/01431161.2019.1633703
- 31. Abdullah Nsair, Senem Onen Cinar, **Abu Qdais H. A.** and , Kerstin Kuchta, (2019) Optimizing the performance of a large scale biogas plant by controlling stirring process: A case study, Energy Conversion and Management, https://doi.org/10.1016/j.enconman.2019.111931
- 32. **Abu-Qdais, H.A.;** Al-Ghazo, M.A.; Al-Ghazo, E.M., (2020). Statistical analysis and characteristics of hospital medical waste under novel Coronavirus outbreak. Global Journal of Environmental Science and Management. 6(4):1-10, <u>DOI:</u> 10.22034/gjesm.2020.04.0
- 33. Kurbatova A. and **Abu-Qdais H. A.** (2020) Using Multi-Criteria Decision Analysis to Select Waste to Energy Technology for a Mega City: The Case of Moscow, Sustainability, 12, 9828; doi:10.3390/su12239828
- 34. Gibellini S., **Abu Qdais H. A**. and Vaccari M. (2021) Municipal solid waste management in refugee hosting communities: Analysis of a case study in northern Jordan, Waste Management and Research, https://doi.org/10.1177/0734242X21994656
- 35. **Abu-Qdais, H.A.**; Abu-Dalo, M.A.; Hajeer, Y.Y. (2021) Impacts of Nanosilver-Based Textile Products Using a Life Cycle Assessment, Sustainability **2021**, 13, 3436. https://doi.org/10.3390/su13063436
- 36. **Abu-Qdais H. A**. and Kurbatova A. I (2022) Role of Eco-Industrial Parks in Promoting the Circular Economy Model in Russia: A Case Study, Sustainability, 2022, 14, 3893. https://doi.org/10.3390/su14073893
- 37. **Abu-Qdais, H A**.; Al-Ghazawi, Z and Awawdeh, A. (2023) Assessment of Greenhouse Gas Emissions and Energetic Potential from Solid Waste Landfills in Jordan: A Comparative Modelling Analysis. Water 2023, 15, 155.
- 38. Al Theeb N., **Abu Qdais H. A**. and Abu Qdais F. and Habibah O. (2022) Utilizing AHP-TOPSIS as multi-criteria decision approaches to select the best alternative for

- waste to energy technology, Jordan Journal of Mechanical and Industrial Engineering (JJMIE), 16, pp 601-613
- 39. **Abu-Qdais, H.A**.; Shatnawi, N.; Al-Shahrabi, R. (2023) Modelling the Impact of Fees and Circular Economy Options on the Financial Sustainability of the Solid Waste Management System in Jordan. Resources 2023, 12, 32. doi.org/10.3390/resources12030032
- 40. **Abu-Qdais H**., Al-Saleh. (2023) Developing an extended producer responsibility system for solid waste management in Jordan using multi-criteria decision-making approach, Waste Management and Research, doi:10.1177/0734242X231198444
- 41. Kurbatova, A.I., Abu-Qdais, H.A. and Mikhaylichenko, K.Y. (2024) Concentration and health risk assessment of volatile organic compounds from a closed solid waste landfill site: The role of flaring system. *Atmospheric Pollution Research*, 15(3), p.102010.

Publications Related to Water Management & Water Quality

- 1. Alnassay H. and **Abu Qdais H.A**, (1996), Alternatives to Water Fluoridation in Abu Dhabi, Symposium on Water Fluoridation, Kuwait, October, 1996
- 2. Elshorbagy W., **Abu Qdais H.A**., Elsheemy M.K., (2000) Simulation of THM species in Water Distribution Systems of Abu Dhabi, Water Research, V.34, pp 3431-3439
- 3. **Abu Qdais H. A.**, and Alnassay H., (2001) Effect of Pricing Policy on Water Conservation: A Case Study Abu Dhabi City, Water Policy,3(2001) pp 207-214
- 4. **Abu Qdais H. A.** and Batayneh F. (2002) The Role of Desalination in Bridging The Water Gap in Jordan, Desalination 150, pp. 99-106.
- 5. **Abu Qdais H. A.** (2003) Water Demand Management, Security for the MENA Region , Seventh International Water Technology Conference, Cairo, Egypt, 1- 3 April, 2003, pp 5-23.
- 6. **Abu Qdais H. A.** and Halalsheh R, (2004) Impact of Grey Water Recycling on the Performance of Wastewater Treatment Plants in Jordan, International Water Demand Conference, Jordan, May, 2004.

- 7. **Abu Qdais H. A.** and Mousa H. (2004), Removal of Heavy Metals from Wastewater by Membrane Processes, Desalination, 164, pp 105-110
- 8. **Abu Qdais H. A.** (2008) Environmental Impacts of Mega Desalination Projects, The Red-Dead Sea Conveyor, Desalination, 220, pp 16-23.
- 9. **Abu Qdais H. A.,** N. Al –Abed, Z. Al Ghazawi, and F. Abdulla (2009), Prediction of Trihalomethane Formation in Water Distribution Systems, Desalination and Water Treatment, 2, pp 162-169.
- 10. Sameer Al-Asheh, Hani **Abu Qdais**, Adnan AlQuraishi, Osama Husain and Ismail Sadoon (2016) Pyhysico-Chemical Characterisation of an Artificial Pond to Control the Eutrophication Process: A Case Study, International Advanced Research Journal in SCIENCE, Engineering and Technology 3, pp27-40.
- 11. **Abu Qdais H. A**., Abdulla F. and Kurbatova A. I. (2019) Wastewater reuse in Jordan and its potential as an adaptation measure to climate change, Journal of Environmental Engineering and Science 14, PP 203–211.
- 12. Sneha Chede, Nelson M Anaya, Vinka Oyanedel-Craver, Sanam Gorgannejad, Tequila, AL Harris, Jumana Al-Mallahi, Muna Abu-Dalo, Hani **Abu-Qdais**, Isabel C Escobar (2019) Desalination using low biofouling nanocomposite membranes: From batch-scale to continuous-scale membrane fabrication, continuous-scale membrane fabrication, Desalination, 415, pp 601-613

Other Publications

- 1. **Abu Qdais H. A.**, and S. Abo-Qudais, (2000) Environmental Impact Assessment of Road Construction Projects, Environment & Ecology 18(2), pp 405-419
- Abo-Qudais S. and Abu Qdais, H. A., (2005) Perceptions and Attitudes of Individuals Exposed to Traffic Noise in Working Places, Building an Environment, 40 pp 778-787
- 3. S. Abo-Qudais and **Abu Qdais H. A.**, (2005) Performance Evaluation of Vehicles Emissions Prediction Models, Clean Technology and Environmental Policy, 7, pp 279-284.

- 4. Abu-Allaban M. and **Abu Qdais H. A.** (2011) Impact Assessment of Ambient Air Quality by Cement Industry: A Case Study in Jordan, Aerosol and Air Quality Research, 11 pp 802–810.
- 5. **Abu Qdais H. A.**, Saadeh O., Al-wedyan M. I., Altal R. and Abu Dalo M.A. (2019), Environmental sustainability features in large university campuses: Jordan University of Science and Technology (JUST) as a model of green university, Sustainability in Higher Education, 20, pp214-228 doi.org/10.1108/IJSHE-06-2018-0102
 - 6. Shatnawi N. and **Abu Qdais H. A.** (2019) Mapping Urban Land Surface Temperature Using Remote Sensing Techniques and Artificial Neural Network Modelling, International Journal of Remote Sensing, 40, pp 3968–3983 doi.org/10.1080/01431161.2018.1557792
 - 7. Shatnawi N. and **Abu Qdais H. A.** (2021) Assessing and Predicting Air Quality in Northern Jordan During the Lockdown Due to COVID-19 Virus Pandemic Using Artificial Neural Network, Air Quality, Atmosphere and Health, doi.org/10.1007/s11869-020-00968-7

Books and Book Chapters

- 1. Loay Qrenawy, **Hani Abu Qdais** and Fayez Abdullah, (2011) Environmental and Health Risk Assessment of Al-Akaider Landfill, Lambert Publishing, Germany.
- 2. **Hani Abu Qdais,** Strategies of Integrated Water Resources Management (2004), Emirates Center for Strategic Studies and Research, Abu Dhabi, UAE (in Arabic)
- 3. Al- Widyan M. A. and **Abu Qdais H.A (2018)** Quality Assurance at Jordan University of Science and Technology (JUST): Integrating Administrative Quality and Academic Accreditation, in The Future of Higher Education in the Middle East and North Africa, Edited by, Habib Faraidoun, Mandy Mok, and Kevin Downing, Springer.

Master Thesis Supervised

- 1. Feasibility of Municipal Solid Waste Recycling in Irbid City
- 2. Simulation of Solid Waste Biodegradation in Landfills
- 3. Modelling Biogas Production from Closed Landfill of Russeifah
- 4. Environmental and Health Risks Impacts of Al Akeeder Landfill
- 5. Developing National Criteria for Setting Solid Waste Landfills Sites in Jordan
- 6. Simulation of Biogas Plant Performance Using Artificial Neural Networks
- 7. Evaluation of Medical Waste Ash Solidification Process
- 8. Analysis of Domestic Solid Waste Characteristics in Irbid City
- 9. Biogas Production Potential from Sludge at JUST Wastewater Treatment Plant
- 10. Energetic Potential of Solid Waste Landfills in Jordan
- 11. Techno-economic assessment of solid waste recycling in North Jordan
- 12. Assessment of Solid Waste Physical Characteristics Using Image Techniques and Artificial Intelligence.
- 13. Developing an Extended Producer Responsibility (EPR) System for Solid Waste in Jordan Using Multicriteria Decision-Making Approach
- 14. Environmental Impacts of Biowaste Treatment Options Using Life Cycle Assessment Approach
- 15. Life Cycle Assessment of Waste to Hydrogen Energy Technologies

PhD Thesis Supervised

International Co-Supervisor PhD thesis titled " A Framework for Managing Challenging Waste: Case of Plastic and Paper Waste in Jordan, PhD student Silvia Gibilini, University of Brescia, Italy.

International Co-Supervisor PhD thesis titled "Impact of Stirring on Biogas Production from Solid Waste, PhD student Abdalla Nuseir, Technical University of Hamburg, Germany.

International Co-Supervisor PhD thesis titled "Flood Run off in Plain Rivers of Kazakhstan", PhD Student, Arystambekova Dinara, University of Al-Farabi, Kazakh National University, Kazakhstan.

Consultation to International / National Agencies

- 1. **Technical Consultant** for UNDP, on Zarqa Municipal Solid Waste Management Project.
- 2. **National Team leader** in a Study for Assessing Synergies Between the Rio Environmental Conventions, Funded by Global Environmental Facility
- 3. **National Consultant** to UNDP, Developing policy-relevant capacity for implementation of the Global Environmental Conventions in Jordan.
- 4. **Technical Consultant** for Medical Waste management in Northern Jordan. USAID funded project.
- 5. **Team leader** to conduct Rapid Environmental Assessment Study for Al Ghabawi Landfill site for Greater Amman Municipality.
- 6. **Consultant** to the Ministry of Environment, Jordan in the field of Industrial and Hazardous Waste Management (Swaqa Hazardous Waste Facility).
- 7. **Team Leader** in a project, introducing the Biogas Technology into University Curriculum. Funded by UNDP. The project included designing a study plan, training the Environmental Engineering Students on minimizing the GHGs from solid waste via energy recovery. A state of the art research laboratory waste to energy was established in JUST.
- 8. **Team Leader** on a project on Capacity Building of The Jordanian Professionals in Biogas Technology. The project funded by UNDP included training sessions and onsite

- training for the Decision Makers, Engineers, and Technicians from Jordan Biogas Company, Ministry of Environment, Municipalities and Common Services Councils.
- Consultant to UNDP to prepare the study on National Capacity Self-Assessment (NCSA) to Implement Rio Conventions (Strategic Planning and Linkage between Conventions)
- 10. Team leader in Assessing the Energy Potential of Al Akeeder Landfill. A USAID funded project which aimed at constructing testing and commissioning a pilot biogas plant at Al Akeeder landfill site, so as to estimate the energy potential of Al Akeeder Landfill and to list it as a CDM project and preparing the TOR for private investors to build a full scale biogas plant.
- 11.**Team Leader** for Studying Environmental Performance of Al Hosayneyat Landfill, Al Mafraq –Jordan.
- 12.**Team Leader** in a study to Improve the Environmental Performance of Al Akeeder Landfill in Northern Jordan. Irbid Joint Services Council
- 13. Consultant to WHO in Solid Waste Community Based Initiative.
- 14. **Consultant** to GIZ and to Solid Waste Network for Exchanging Expertise (SWEEPNET) to prepare the National Solid Waste Management Profile of Jordan.
- 15.**Team Leader** to prepare a study titled "National Environmental and Economic Development Study for Climate Change" funded by UNFCCC.
- 16. **Team leader** to prepare an environmental management plan of the subcritical nuclear reactor at Jordan University of Science and Technology.
- 17. **Team leader** to prepare Environmental Impact Assessment study to the Jordanian Research and Training Nuclear Reactor.
- 18. **Consultant** to UNDP to prepare a project document related to The Impact of Syrian Refugees on Solid Waste Management in Hosting Communities. The project got funded by 13 million Canadian \$ by the Government of Canada.

- 19. **Consultant** to FAO, to assess the feasibility of producing biogas from wastewater sludge at Al Zaatari Refugees Camp.
- 20. **Consultant** to Stockholm International Water Institute (SIWI) in the field of water integrity.
- 21. Independent Solid Waste Technical Expert to EU and GIZ in towards EU budget support program "Support to the Implementation of the National Solid Waste Management Strategy" in Jordan.
- 22. **Coordinator** of a project funded by UNDP titled Facilitation of Local Women Engagement in Waste Recycling and Re-Use Businesses.
- 23. **Coordinator** of a project funded by GIZ, titled Waste to Positive Energy " Capacity building component of Master Students in the field of Solid Waste Management"
 - 24. **Consultant** to a project funded by the EU " A Mediterranean Integrated Alliance on Waste for Cities and Citizens"
 - 25. Consultant to a project funded by EU "Decentralised composting for small towns"
 - 26. Coordinator of German –MENA Universities German-MENA University Network for Waste Management and Circular Economy

Solid Waste & Circular Economy Training Activities

- Solid Waste collections and Transportation Principles, Training course to Zarqa Municipality Engineers, UNDP, Jordan 2001
- 2. Trainer in waste reuse, Recycling and EIA course conducted in Damascus by The Islamic Development Bank, 2002
- 3. Integrated Solid Waste Management. Training course to Municipal Engineers in Jordan, 2003,2004,2005, City Development Bank, Jordan
- 4. Industrial and Hazardous Waste Management training for Ministry of Environment Engineers, 2005

- 5. Sanitary Landfill Siting and Design, Training Course for Engineers, Amman Municipality, JICA 2005
- Strategy for Solid Waste Management, Training Course for Engineers in Jordan,
 JICA, 2005
- 7. Solid Waste Composting in Hot Climate, Training course to Iraqi Engineers through USAID Iraq, 2006
- 8. Integrated Medical Waste Management, Training to Engineers and Medical staff in Jordan, USAID Jordan, 2005, 2006, 2007
- 9. Environmental and Economic Aspects of Solid Waste Management for Sana'a Municipality Engineers, Yemen, 2008, GIZ Yemen
- 10. Public Private Partnership in Solid Waste Management, Engineers from different Arab countries, Arab Social and Economic Development Fund, 2009
- Design and Operation of Solid Waste Transfer Stations, Iraqi Engineers, 2010,
 UNDP Iraq
- 12. Strategic Management of Solid Waste, Training course to Joint Services Councils Engineers, Jordan 2011.
- 13. Sorting and Analyzing Solid Waste Components, on job training for Al Akeeder landfill employees, 2012
- Integrated Solid Waste Management System, Irbid Municipality Employees,
 2013
- 15. Design of Biogas Digesters from Waste, Municipal Engineers from communities affected by the Syrian Refugees, 2015 FAO Jordan
- Capacity building activities in Waste-to-Positive Energy, Project funded by GIZ,
 2018-2020

- 17. Capacity building activities in Solid Waste Management and Circular Economy, Project funded by GIZ, 2020-2022
- 18. Training of Women in North Jordan Valley to Facilitation of Local Women Engagement in Waste Sortng, Recycling and Re-Use Businesses, UNDP, 2019
- 19. Training on Circular Economy: Towards Zero Waste. Municipal Engineers, Irbid Greater Municipality Employees, 2020, ENI EU funded project
- **20.** Training of Youth within a project Supporting Circular Economy Opportunities for Employment and Social Inclusion, EU funded Project, Agaba, 2022.

Administrative activities and committees membership

Department Level

- Coordinator of water Resources and Environmental Engineering
- Member of Departmental Scientific Research Committee
- Member of Curriculum Review and Development Committee
- Member of Graduation Projects review Committee
- Member of Students Affairs Committee

University Level

- Chairman of University Administrative Committee
- Chairman of University Registration Committee
- Chairman of University Quality Assurance Committee
- University Accreditation Officer
- Team leader of the University International Ranking
- Chairman of the University News Letter Editorial Board
- Member of the Deans Council
- Member of the University Council
- Chairman of the Scientific Research and Graduate Studies Council
- Member of the University Strategic Plan Committee
- Member of the Higher Scientific Research Committee
- Coordinator of MSc. Program in Water Demand Management
- Member of University Scholarship Committee
- Member of University Admission Committee
- Member of Human Resources Committee
- Member of University Study Plan Committee
- Member of Green Campus Committee
- Member of Investigatory Committee with Faculty Members

Outside The University

- Member of Privatization Committees of Abu Dhabi Water Department
- Member of the Board of Director of Abu Dhabi Environment Group (NGO)
- Representative of Abu Dhabi Water & Electricity Department in the Project Committees at the Department of Planning
- **Member** of Referee Committee for State Prize in Environment, Jordan
- Member of the National Committee to Prepare a National Master Plan of Solid Waste Management in Jordan
- Member of The National Committee to Prepare the Jordanian State of Environment Report
- Member of the Consultative Council of the Jordanian Ministry of Water and Irrigation
- **Member** of the Higher Scientific Research Committee at the Ministry of Higher Education and Scientific Research.
- **Member** of Committees of Distinguished Researcher Award, Ministry of Higher Education and Scientific Research.
- **Consultant** to the Scientific Degrees Equivalency Committee, Ministry of Higher Education and Scientific Research.
- Member Board of Directors, Yarmouk Water Company.
- Member Board of Trustees, Applied Sciences University, Amman, Jordan
- Member Board of Directors, Jordan Nuclear and Radiation Commission
- Chairman of Water and Environment Committee, Scientific Research Support Fund, Ministry of Higher Education and Scientific Research
- Member of Scientific Committee, Scientific Research Support Fund.
- Chairman of Accreditation Committee for The Environmental Management Master Programs at the Jordanian Universities.
- Member of QS Maple Advisory Committee for university ranking
- Member of Jordanian Universities Ranking Committee

- Board Member of Environment Protection Fund, Ministry of Environment
- Chairman of Environmental Committee, Irbid Development Cooperation
- Chairman of Mercury Waste Management Committee, Ministry of Environment

Academic Visits and Study Tours

- Visiting researcher, Waste Management Department, University of Essen, Germany, 2001
- Study tour to waste Management facilities in Berlin, Cologne, and Dusseldorf, Germany, 2004
- Visiting Lecturer at Karlsruhe Institute of Technology in waste management and climate change, Germany, 2010
- Visiting Lecturer at Alfaraby University, Waste Management, Kazakhstan, 2015.
- Consultant in Environmental Engineering, North Caucasus Federal University, Russia, 2015-2016
- Visiting Lecturer at Brescia University, Italy, in Waste Management, 2017
- Study tour to waste Management facilities in Rostock, Hamburg and Dresden, Germany, 2018
- Resident Researcher at the Circular Economy and Waste Management, Dresden Technical University, Germany, 2018.
- Visiting Lecturer, University of Granada, Spain 2019, ERASMUS +
- Study tour to German Waste Facilities and International Waste Management Exhibition IFAT, 2021, With German-Mena Universities on Waste Management & Circular Economy.

Quality Assurance and Accreditation Activities

- 1. Chairman of ISO steering Committee of the University
- 2. Chairman of University Quality Assurance Committee

3. University Accreditation Officer

4. Chairman of Several Committees for accreditation of Environmental Engineering

and Water Resources programs in different universities.

5. Handling the Accreditation of university programs with The National Higher

Education Accreditation Commission.

6. Member of the team to prepare the application to American Accreditation Board

for Engineering and Technology (ABET) of the Civil Engineering Department.

7. Member of the Higher National Committee for Jordanian Ranking of Universities

8. Member of QS Ranking APPLE Academic Advisory Committee

Professional Associations Membership

- Head of Global Waste to Energy Research and Technology Council Chapter in

Jordan

International Solid Waste Association (ISWA)

- International Water Association

- International Water Desalination Association

Jordanian Engineers Association

Languages

Arabic: Mother Tongue

English: Excellent, read, write and speak.

Russian: Good, read, write and speak.