



Maisa'a Wasif Shammout- PhD

Water, Energy and Environment Center

The University of Jordan

Amman 11942 Jordan

Tel: +962-6-5355000 ext. 23907

E-mail: m.shammout@ju.edu.jo; maisaa_shammout@hotmail.com

<https://orcid.org/0000-0002-1026-5999>

Links: <https://scholar.google.com/citations?user=UIxk1TQAAAAJ&hl=en>

<https://www.researchgate.net/profile/Maisaa-Shammout>

<http://eacademic.ju.edu.jo/m.shammout/Lists/Published%20Research/AllItems.aspx>

<https://research.ju.edu.jo/research/groups/WRMS/home.aspx>

SUMMARY OF KEY QUALIFICATIONS

Dr. SHAMMOUT is a Full Professor of water resources management at the Water, Energy and Environment Centre/ The University of Jordan. She holds a PhD in Agricultural Resources and Environment in the field of “Water Resources Management, Modeling and Hydrology, and Water Quality”. The dissertation research was on modeling land use options for managing surface water and flood areas through different scientific and applicable scenarios. She holds a M.Sc. in Environmental Sciences and Management and a B.Sc. in Science.

Dr. Shammout's research interests and experience are in the fields of water resources management and optimization, watershed modeling and hydrological applications of basin hydrology analysis, basin ecology, water quality and bioremediation, environmental conservation, and integrated water resources management (IWRM). She has led and worked on more than ten (10) internationally and locally funded projects, such as “An Integrated Approach for Water Resources Sustainability of Yarmouk River Basin Considering Socioeconomic Aspects Using Supply-Demand Water Simulation Model,” “CrITERIA: Cr(VI) Impacted Water Bodies in the Mediterranean: Transposing Management Options for Efficient Water Resources use through an Interdisciplinary Approach,” “Water Use Efficiency for Improving Water Productivity in the Jordan Valley/Jordan,” “Water Lentils in Jordan's Irrigation Ponds,” “MELIA: Mediterranean Dialogue on Integrated Water Management,” OPTIMA: Optimization for Sustainable Water Resources Management”, and other projects to manage water resources.

She is editor and reviewer in refereed international journals, and has published fifty (50) scientific papers in refereed international journals, international conferences, and in books issued by international publishing presses. Dr. Shammout has published many technical reports at the level of international and local research cooperation, and participated in administrative and academic committees, international conference committees, and workshops on the protecting water resources.

EDUCATION

PhD in Agricultural Resources and Environment, The University of Jordan, Amman, Jordan, 2004

M.Sc. in Environmental Sciences and Management, The University of Jordan, Amman, Jordan

B.Sc. in Science-Biology, Yarmouk University, Irbid, Jordan

RESEARCH INTEREST

Water resources management and optimization, water quality and hydrology, watershed management, water bioremediation, environmental conservation, hydrologic applications, and watershed modeling and analysis.

WORK EXPERIENCE

- Full Professor and Senior Researcher of water resources management, Water, Energy, and Environment Centre, The University of Jordan, 2024-present
- Associate Researcher, Water, Energy, and Environment Centre, The University of Jordan, August 2015-2024.
- Assistant Researcher, Water, Energy, and Environment Centre, The University of Jordan, May 2010-2015.
- Research Assistant– Faculty of Agriculture, The University of Jordan, 2004-2009.
- Research Assistant- Water, Energy, and Environment Centre, The University of Jordan, May 1997-1999.

PUBLICATIONS

Shammout MW and Shatanawi K (2025) Integrated Approach to Water Resources Sustainability Using Management Technologies for Urban Expansion: A Case from Jordan. *Lecture Notes in Networks and Systems (LNNS)*, under publication.

Shammout MW, Abualhaija M, Shatanawi K, Qtaishat T, Abu-Ghunmi L, and Thair Al-Momani (2025) AL-WEHDAH DAM: A VITAL SOURCE OF IRRIGATION WATER IN THE YARMOUK RIVER BASIN IN JORDAN- ASSESSING QUANTITY, QUALITY, AND SUSTAINABILITY. *Water Conservation & Management (WCM)*. 9(2): 328–334. [10.26480/wcm.02.2025.328.334](https://doi.org/10.26480/wcm.02.2025.328.334)

Shammout MW (2024) Management Options for Heavy Metals and Hexavalent Chromium Cr(VI) in the Zarqa River Basin of Jordan for Efficient Water Resources Use. *Lecture Notes in Networks and Systems (LNNS)*. 1106 LNNS, pp. 229–239. https://link.springer.com/chapter/10.1007/978-981-97-8666-4_19

Shammout MW (2023) Calculation and Management of Water Supply and Demand under Land Use/Cover Changes in the Yarmouk River Basin Governorates in Jordan. *Land* 12(8), 1518. <https://doi.org/10.3390/land12081518>

- Shammout MW**, Shatanawi K, AL Zamil M, Abualhaija M (2023) A LONG-TERM ESTIMATION AND MODELING OF DOMESTIC WATER RESOURCES IN THE YARMOUK RIVER BASIN-JORDAN. *Water Conservation & Management (WCM)* 7(2): 107-113. <http://doi.org/10.26480/wcm.02.2023.107.113>
- Shammout MW**, Shatanawi K, Abualhaija M (2023) Influence of Population Growth on Supply, Demand, and Quality Issues of Water Resources in the Yarmouk River Basin in Jordan. *Journal of Experimental Biology and Agricultural Sciences* 11(1): 171–178. [http://dx.doi.org/10.18006/2023.11\(1\).171.178](http://dx.doi.org/10.18006/2023.11(1).171.178)
- Shammout MW**, Shatanawi M, Awwad AM (2022) Fate and Management of Pollution of Hexavalent Chromium Cr(VI) and Heavy Metals in the Zarqa River Basin in Jordan. *Journal of Ecological Engineering* 23(2): 108-115. <https://doi.org/10.12911/22998993/144417>
- Abualhaija M and **Shammout M** (2022) Effects of the COVID-19 Pandemic Lockdown on the Quality and Pollution of Irrigation Water in the Dams of Jordan. *Sustainability* 2022, 14, 14596. <https://doi.org/10.3390/su142114596>
[file:///C:/Users/Maisa/Downloads/sustainability-14-14596%20\(1\).pdf](file:///C:/Users/Maisa/Downloads/sustainability-14-14596%20(1).pdf)
- Shammout MW**, Shatanawi K, Al-Bakri J, Abualhaija MM (2021) Impact of Land Use/Cover Changes on the Flow of the Zarqa River in Jordan. *Journal of Ecological Engineering* 22(10): 40-50. <https://doi.org/10.12911/22998993/142184>
- Shammout MW**, Shatanawi M (2021) Water Supply-Demand Management and Cr(VI) Contamination: A Participatory Approach. *Bulletin of Environmental Contamination and Toxicology (BECT)* 106: 441–445. <https://doi.org/10.1007/s00128-020-02958-y>
- Shammout MW** and Awwad AM (2021) A novel route for the synthesis of copper oxide nanoparticles using Bougainvillea plant flowers extract and antifungal activity evaluation. *Chemistry International* 7(1): 71-78. <http://bosajournals.com/index.php/chemint/article/view/26/25>
- Awwad AM, **Shammout MW**, Amer MW (2021) Fe (OH) 3/kaolinite nanoplatelets: Equilibrium and thermodynamic studies for the adsorption of Pb (II) ions from aqueous solution. *Chemistry International* 7(2): 90-102. <http://bosajournals.com/index.php/chemint/article/view/11>
- Awwad AM, Salem NM, Amer MW, **Shammout MW** (2021) Adsorptive removal of Pb (II) and Cd (II) ions from aqueous solution onto modified Hiswa iron-kaolin clay: Equilibrium and thermodynamic aspects. *Chemistry International* 7(2): 139-144. <http://bosajournals.com/index.php/chemint/issue/view/2>
- Shammout MW** (2020) Native Growth and Conservation of Duckweed (Lemnaceae) in Jordan. *Pakistan Journal of Biological Sciences*. 23(8):1055-1059. DOI: [10.3923/pjbs.2020.1055.1059](https://doi.org/10.3923/pjbs.2020.1055.1059)
- Abualhaija MM, Hilal AH, **Shammout MW** and Mohammad AHW (2020) Assessment of Reservoir Water Quality Using Water Quality Indices: A Case Study from Jordan. *International Journal of Engineering Research and Technology* 13(3): 397-406. http://www.irphouse.com/ijert20/ijertv13n3_03.pdf
- Al-a'qarbeh MM, **Shammout MW** and Awwad AM (2020) Nano platelets kaolinite for the adsorption of toxic metal ions in the environment. *Chemistry International* 6(2) (2020): 49-55. <http://bosajournals.com/chemint/index.php/v6i2>

- Shammout MW**, Abualhaija MM (2019) An Analysis of Long Term Yearly Water Flow Trend and Its Impact on Sediment Yield in King Talal Dam. *International Journal of Engineering Research and Technology* 12(12): 3041-3049. http://www.irphouse.com/ijert19/ijertv12n12_132.pdf
- Shammout MW**, Shatanawi M (2019) Stakeholder Participation in Prioritization of Water Supply and Demand in Jordan. In Proceedings: The 16th International Conference on Environmental Science and Technology (CEST2019), Sept. 4-7th, 2019, Rodos Palace, Greece-Rodos, ISSN: 2944-9820I, SBN: 978-618-86292-0-2. https://cest2019.gnest.org/sites/default/files/presentation_file_list/cest2019_00538_oral_paper.pdf
- Giovanni Mongelli, Ariadne Argyraki, Mari Luz García Lorenzo, **Maisa'a Wasif Shammout**, Michele Paternoster, and Vincenzo Simeone (2019) Groundwater Quality in the Mediterranean Region. *Geofluids*, vol. 2019, Article ID 7269304. <https://doi.org/10.1155/2019/7269304>
- Abualhaija MM, **Shammout MW**, Mohammad AHW, Hilal AH (2019) Heavy Metals in water and sediments of King talal Dam the largest Man-Made water Body in Jordan. *Water and Energy International* 62r (5): 49 -62. <http://www.indianjournals.com/ijor.aspx?target=ijor:wei&volume=62r&issue=5&article=011>
- Shammout MW** (2019) Water Bioremediation Using Aquatic plants. Microbial bioremediation of xenobiotic compounds, CRC Press, Taylor and Francis. Published January 30th, 2019, 242, Pages, 37- 56, ISBN 9781138743922- CAT# K32395. https://books.google.jo/books?hl=en&lr=&id=rRaGDwAAQBAJ&oi=fnd&pg=PP1&dq=info:vikhXyh6P38J:scholar.google.com&ots=qkoOseCJQk&sig=3hBf92T4vGa99SCHsPJ432eZLa4&redir_esc=y#v=onepage&q&f=false
- Shammout MW**, Qtaishat T, Rawabdeh H, Shatanawi M (2018) Improving Water Use Efficiency under Deficit Irrigation in the Jordan Valley. *Sustainability* 2018, 10(11): 4317. <https://doi.org/10.3390/su10114317>. <https://www.mdpi.com/20711050/10/11/4317>.
- Shammout MW**, Shatanawi M, Nelson J (2018) Curve Number Applications for Restoration the Zarqa River Basin. *Sustainability* 2018, 10(3): 586. <https://doi.org/10.3390/su10030586>.
- Zakaria H, **Shammout MW** (2018) Duckweed in Irrigation Water as a Replacement of Soybean Meal in the Laying Hens' Diet. (*Revista Brasileira de Ciencia Avicola*) *Brazilian Journal of Poultry Science* 20(3): 573-582. <http://dx.doi.org/10.1590/1806-9061-2018-0737>.
- Jasem AH, Abualhaija MM, **Shammout MW** (2018) Chemical Indices of Water Quality in the Zarqa River-Jordan: Concentrations of Major Cations and Water Suitability for Irrigation. *International Journal of Applied Engineering Research* 13(1): 697-706. https://www.ripublication.com/ijaer18/ijaerv13n1_95.pdf
- Jasem AH, Sharadqah S, **Shammout MW**, Perez SM, Khaldoun K (2017) Potentiality of The Groundwater Resources in North River Side Wadis Basin, Jordan and its God Vulnerability. *International Journal of Applied Engineering Research* 12(21): 10693-10700. https://www.ripublication.com/ijaer17/ijaerv12n21_26.pdf

- Shammout MW, Zakaria H** (2016) Functions of Duckweed as a Natural Water Purifying Agent and as a Feed Source for Laying Hens. *Computer Science and Engineering*, pp. 72 -77, DEStech Publications, doi: 10.12783/dtcse/mcsse2016/10943.
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- Shammout MW, Qtaishat T, Shatanawi M** (2016) Irrigation Practices for Improving Water Productivity in Jordan Valley. *Social Science, Education and Human Science*, pp. 196-200, DEStech Publications. doi:10.12783/dtssehs/etmi2016/11176.
<https://dpi-journals.com/index.php/dtssehs/article/view/11176>
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- Shammout MW, Zakaria H** (2015) Water Lentils (Duckweed) in Jordan Irrigation Ponds as a Natural Water Bioremediation Agent and Protein Source for Broilers. *Ecological Engineering*, 83:71-77 doi:10.1016/j.ecoleng.2015.05.041
- Shammout MW, Zakaria H** (2015) Water Quality and Growth Trend of Aquatic Plant Duckweed: Management and Benefits. *Environmental Engineering and Computer Application*, pp. 85 -87, CRC/ Taylor and Francis, CRC Press/Balkema.
- Rahbeh M, Shammout MW, Ziadat F, Hadded M** (2015) Evaluating sustainable land and water management practices in Zarqa River basin. The 7th Conference on Scientific Research in Jordan.
- Shammout MW** (2014) Comparison and Assessment of Success of Models in Watershed Simulation and Management. *Water Resource and Protection (JWARP)* Vol. 6 (6): 599-608. <http://www.SciRP.org/journal/jwarp/> doi: [10.4236/jwarp.2014.66058](http://dx.doi.org/10.4236/jwarp.2014.66058)
- Shammout MW, Zakaria H** (2014) Wild Water Lentils Plant (Duckweed, *Lemna* sp.) in Nutrients Removal of Jordan's Irrigation Ponds. *WIT Transactions on the Built Environment*, Vol. 145, pp. 525-531. www.witpress.com
- Shammout MW, Shatanawi K, Jasem AH, Shatanawi M** (2014) Discrete Multi Criteria Optimization DSS for Water Scarce Basin: A case from Jordan. *Life Sci J.* Vol. 11(6s): 611-618.
- Jasem AH, Shammout MW, Shatanawi K** (2014) Groundwater Vulnerability and Hydro chemical Analysis of Disi Sandstone Aquifer-Jordan. *International Journal of Applied Environmental Sciences (IJAES)* 9(6):2865-2877.
- Shammout MW, Shatanawi M, Naber S** (2013) Participatory Optimization Scenario for Water Resources Management: A case from Jordan. *Water Resour Manage* 27(7):1949-1962. <https://doi.org/10.1007/s11269-013-0264-9>
- Jasem AH, Shammout MW, AlRousan D, AlRaggad M** (2011) The Fate of Disi aquifer as stratigic groundwater reserve for shared countries (Jordan and Saudi Arabia). *Water Resource and Protection (JWARP)*, Vol. 3, No. 10, pp. 711-714. <http://www.SciRP.org/journal/jwarp/>.

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<http://www.ripublication.com/Volume/ijaesv6n3.htm>
- Shatanawi M, Naber S, **Shammout MW** (2009) Mainstreaming Agricultural and Water Policies for Social Equity and Economic Efficiency. Option Méditerranéennes, Series A, Number 88, pp. 209- 219. <http://ressources.ciheam.org/om/pdf/a88/00801196.pdf>
- Shammout MW**, Oran S, Fayyad M (2008) The Application of Duckweed (*Lemna* sp.) in Wastewater Treatment in Jordan. *International Journal of Environment and Pollution (IJEP)*, Vol. 33, Issue No.1, pp. 110-120.
http://www.inderscience.com/search/index.php?action=record&rec_id=18472&prevQuery=&ps=10&m=or (Published MSc Thesis).
- Shatanawi M, **Shammout MW**, Naber S (2008) Water conflicts among sectors and environmental uses in Jordan. OPTIONS Méditerranéennes, Mediterranean Seminars, water culture and water conflict in the Mediterranean area, Series A 83:159-172.
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- Shatanawi M, **Shammout MW**, Naber S, Nahla Aboul-Fotouh, Alaa E. Abdin, Samir Sedky, Candela L, Domingo F, Berbel J, Alarcón, Pietro Laureano JJ, Tamoh K, Von Igel W, Soler M, Erich Roberto Trevisiol, Tullio Cambrozzi, Giuseppe Baldo, Francesco Pra Levis and Rodriguez R (2008) Conceptual Frame of Water Conflict in the Mediterranean. Option Méditerranéennes, Series A, Number 83, pp. 205- 212.
<http://ressources.ciheam.org/om/pdf/a83/00800936.pdf>
- Salah M, Al-Weshah R, Nelson E J, **Shammout MW** (2006) Water Resources Management and Modeling in Iraq, the Middle East and Nile Basin: Towards Knowledge Transfer and Capacity Building. *American Society of Civil Engineers (ASCE)* Publications.
[http://dx.doi.org/10.1061/40856\(200\)246](http://dx.doi.org/10.1061/40856(200)246) (Published PhD Dissertation).
- Shammout MW** (2003) Land use options for surface water management in Zarqa river basin using modeling tools. PhD thesis, University of Jordan, Amman, Jordan
- Shammout MW**, Shatanawi M, and Ziadat F (2003) Calibration on WMS Parameters to Improve Runoff Prediction in Zarqa River Basin. In the proceedings of the Second International Conference on Wadi Hydrology, Amman, Jordan, 1-4 July.
<http://sdg.iisd.org/events/second-international-conference-on-wadi-hydrology/>
- Shammout MW**, Oran S, Fayyad M (1999) Propagation of Duckweed, *Lemna* sp. (*Lemnaceae*) and Its Application in Wastewater Treatment in Khirbet As-Samra of Jordan. MSc. thesis, University of Jordan, Amman, Jordan.

RESEARCH EXPERIENCE/ FUNDED PROJECTS

- “An Integrated Approach for Water Resources Sustainability of Yarmouk River Basin Considering Socioeconomic Aspects Using Supply-Demand Water Simulation Model”. This project is funded by Scientific Research Support Fund. The duration of the project: 2020- 2025. Project Budget: 86,086 JD.
- “CrITERIA- Cr(VI) Impacted water bodies in the Mediterranean: Transposing management options for Efficient water Resources use through an Interdisciplinary Approach”. This project is funded by HCST under EU-ERANETMED Water Resources. The duration of the project: 2016- 2020. Project Budget: 538,660 Euro.

- “Assessment of Preferential Subsurface Flow and Transport in Soils near Zarqa River Basin”. This project is funded by the United States Agency for International Development (USAID). The duration of the project is three years (October 2015- August 2018).
Project Budget: 160,000 \$.
- “Water Use Efficiency for Improving Water Productivity in the Jordan Valley/Jordan”. This project is funded by EU- SRTD-II Project “Support to Research, Technological Development and Innovation in Jordan”, and managed by the Higher Council for Science and Technology. The duration of the project is two years (July 2015- August 2017).
Project Budget: 33,000 Euro.
- “Functions of Water Lentils as a Natural Water Bioremediation, and its Suitability for Layer Performance and Egg Production”. This project is funded by Shoman Organization, Amman-Jordan. The duration of the project is one year (March 2015- 2016).
Project Budget: 15,000 JD.
- “Water Lentils in Jordan’s Irrigation Ponds”. This project is funded by Shoman Organization, Amman-Jordan. The duration of the project is two year (2012- June 2014).
Project Budget: 15,000 JD.
- “MELIA: Mediterranean Dialogue on Integrated Water Management”. MELIA aims at structuring a dialogue among the key stakeholders concerned and affected by water use and management, such as scientists, professionals, decision makers, policy makers, water providers, media professionals, educators and citizens. The achievement of this dialog and the dissemination and exploitations of the recommendations obtained will create real added value at the European and Mediterranean scale. MELIA is funded by the European Commission for five years (Sep. 2006-Sep. 2011). Its Budget 30,000 Euro, <http://www.meliaproject.eu/>
- “SOWAMED: Network for the Exchange of Methodologies and Expertise on Sustainable Water and Land Management in the Mediterranean”. SOWAMED objective is to establish a methodology exchange network and build an expertise capacity between partners in several research projects of the INCO -MED program in the domain of sustainable "land and water" resource management and the prevention of risks on cultivated and inhabited watersheds. It is funded by the European Commission for two years (April 2007-April 2009). Its Budget 253,800 Euro, <http://www.umar-lisah.fr/sowamed/project/intranet.php>
- “OPTIMA: Optimization for Sustainable Water Resources Management”. The overall aim of OPTIMA is to develop, implement, test, critically evaluate, and exploit an innovative, scientifically rigorous yet practical approach to water resources management intended to increase efficiencies and to reconcile conflicting demands. Based on the European Water Framework Directive (2000/60/EC) the approach equally considers economic efficiency, environmental compatibility, and social equity as the pillars of sustainable development. OPTIMA project is funded by the European Commission for three years (July 2004- July 2007). OPTIMA Project Budget: 1,976,894 Euro, <http://www.ess.co.at/OPTIMA/>
- “The Use of Duckweed for Wastewater Treatment”. The main objective for the project is to test the efficiency and cost effectiveness of using the duckweed to upgrade quality of the pond effluent (wastewater). This will have positive impact on the environment and on the use of the treated wastewater in agriculture. It will reduce to risk pollution and contamination of surface and groundwater and other natural resources. The project was funded by the Canadian International Development Agency (CIDA) for two years (1998-2000).
It’s Budget: 80,000 JD.

TEACHING

- Instructor of (IWRM), Integrated Water Resources Management MSc. Program, Germany- “Irrigation and Agriculture course”, 2011- 2016/2017.
- MSc Students: Examination Committee of IWRM, 2011- 2016/2017.
- Instructor of (مادة الحياة الجامعية وأخلاقياتها)

CONFERENCES AND WORKSHOPS

- Organizing a Workshop on “Water Management in the Yarmouk River Basin” as part of the activities of the project "Integrated Approach to Sustaining Water Resources in the Yarmouk River Basin, Taking into Account the Economic and Social Aspects Using a Simulation Model for Water Supply and Demand, 4th February, 2025, The University of Jordan, Amman-Jordan.

https://news.ju.edu.jo/Lists/News/Disp_FormAllNews.aspx?id=1837

- 9th International Conference on Information System Design and Intelligent Applications (ISDIA 2014). 3-4th January 2025, University of Wollongong, Dubai, United Arab of Emirates.

Oral Presentation:

Shammout MW, Shatanawi K (2025) Integrated Approach to Water Resources Sustainability Using Management Technologies for Urban Expansion: A Case from Jordan.

- The ESCWA-UN Workshop on “Improved Groundwater Management in the Arab Region Use of the Gravity Recovery and Climate Experiment (GRACE) Mission to Monitor Groundwater Storage Change”, 25-26th February 2024, Amman- Jordan.
- 8th International Conference on Information System Design and Intelligent Applications (ISDIA 2014). 3-4th January 2024, Sofitel Dubai Jumeirah Beach, Dubai, United Arab of Emirates.

Oral Presentation:

Shammout MW (2024) Management Options for Heavy Metals and Hexavalent Chromium Cr (VI) in the Zarqa River Basin of Jordan for Efficient Water Resources Use.

- International Conference on "International Conference on Mathematical Modelling in Applied Sciences (ICMMAS-2023)", 18th September 2023, Bali, Indonesia.

Oral Presentation:

Shammout MW, Shatanawi K (2023) Management Technologies for Urbanization in the Yarmouk River Basin in Jordan for the Sustainability of Water Resources Use. In Proceedings: International Conference on "International Conference on Mathematical Modelling in Applied Sciences (ICMMAS-2023), pp. 19 -23, Sept. 18th, 2023, Bali, Indonesia.

- Participating in an Event on “Chile Day التشيلي”, October 10th, 2023, The International Affairs Unit (IAU), The University of Jordan, Amman-Jordan.
- Participating in the “Experts to develop a methodology for an effective indicator on water education related to the Sustainable Development Plan for the year 2030 خبراء لتطوير منهجية 2030”, November 24th, 2021 The Jordanian National Commission for Education, Culture and Science, Amman-Jordan.
- Participating in a Lecture on “Rehabilitation of al-Balqa’a Wastewater Treatment Plant”, February 9th, 2020, Professional Associations Complex, Amman-Jordan.
- International Conference on "Environmental Science and Technology (CEST2019)", 4-7th September 2019, Rodos Palace, Greece-Rodos, ISSN: 2944-9820, ISBN: 978-618-86292-0-2

Oral Presentation:

Shammout MW, Shatanawi M (2019) Stakeholder Participation in Prioritization of Water Supply and Demand in Jordan.

- The 5th IWA International Symposium on “Water and Wastewater Technologies in Ancient Civilizations: Evolution of Technologies from Prehistory to Modern Times”, 11-13, September 2019, Dead Sea-Jordan.
- Mohammed bin Rashid Initiative for Global Prosperity 2019, 12th June 2019, at Kempinski Hotel, Amman- Jordan.
- The NANOTEK SUMMIT 2018, Sep. 21st–22nd, 2018, Dubai, United Arab Emirates, ISBN: 978-81-938236-3-7
Oral Presentation:
 - Chemical Modification of Jordanian Kaolin Clay for Toxic Metals Ions Pollutants in Environment via Adsorption Process.
- Organizing a Workshop on “Quality and Protection of Water Resources in the Zarqa River Basin” “مصادر المياه ونوعيتها وحمايتها من التلوث في حوض نهر الزرقاء” ERANETMED- Initiative, 7th May 2018, The University of Jordan, Amman- Jordan.
http://ujnews2.ju.edu.jo/Lists/News/Disp_FormNewsConf.aspx?ID=9234
- The scientific Workshop on “Restoration and Rehabilitation of the Roman Nymphaeum in Amman Project”, 31th March 2018, Amman- Jordan.
- The initiative to shift towards sustainable production and consumption patterns “SWIFT MED-European Commission” 15 November 2018, Amman- Jordan.
- Event on ERANETMED legacy for Euro-Mediterranean Joint Programming, ERANETMED-CrITERIA Project, 5-7th March 2018, Aqaba- Jordan.
- A workshop on “Solid Waste Management in Jordan” December 19th, 2018, Professional Associations Complex, Amman- Jordan.
- American Geophysical Union AGU 2017 FALL MEETING, Groundwater Response to Climate Change and Variability, 11-15 December 2017 in New Orleans, Louisiana.

Poster:

- Maria Hatzaki, Argyraki A, Gkiouleka I, Paternoster M, Bagci ZH, **Shammout MW**, Moraetis D, Dermatas D (2017) A future climate assessment on the quality and quantity of CrVI contaminated groundwater in the eastern Mediterranean.
<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/257041>
- Food Security Conference, 6 Feb. 2017, Amman-Jordan.
 - Event on “Bridging Science and Business, Support to Research and Technological Development & Innovation initiatives and Strategies in Jordan- SRTD II”, 11-13th February 2017, Amman- Jordan.
 - Attendance on "How to describe cosmetics", 22 Feb, 2017, Hamdi Mango Center for Scientific Research, The University of Jordan, Amman-Jordan.
 - 4th Arab Water Week, May 2017, Dead Sea, Jordan;
 - Climate Change Impacts on Surface Water Availability & Management of Jordan’s Zarqa River Basin.
 - Dams in Jordan, a fresh resource to think about!
 - Shoman Cultural Forum/ Abdul Hameed Shoman Foundation- A workshop on “scientific research and innovation”, 1st August, 2017, Amman-Jordan.
 - International Conference on "Water Management in Arid and Semi-Arid Lands”, 7-10th October 2017, JUST, Irbid, Jordan.
 - Session on “Science to Innovation in the Arab World,” 5th November 2017 in Shoman Organization, Amman-Jordan.
 - International Conference on “Mathematical, Computational and Statistical Sciences and Engineering (MCSSE 2016)”, October 30–31, 2016, Shenzhen, China, ISBN: 978-1-60595-396-0, ISSN: 2475-8841

Oral Presentation:

- Functions of Duckweed as a Natural Water Purifying Agent and as a Feed Source for Laying Hens.

- International Conference on “Education, Training and Management Innovation (ETMI 2016)”, October 30–31, 2016, Shenzhen, China, ISBN: 978-1-60595-395-3, ISSN: 2475-0042

Oral Presentation:

- Irrigation Practices for Improving Water Productivity in Jordan Valley.
- A workshop on “Innovation in Energy”, 1st-2nd of February, 2016, Royal Scientific Research, Amman-Jordan.
- Seminar on " "Safety plan for reclaimed water use in agriculture", 18th July 2016, Jordan Engineers Association, Amman-Jordan.
- Climate Change Scenario Modeling using Soil and Water Assessment Tool, ICARDA, 5- 7th May, 2015, Amman- Jordan.
- The seventh conference for scientific research in Jordan, the Jordan Society for Scientific Research and the University of the Middle East, 14th November, 2015, Amman- Jordan.
- The 9th World Congress of EWRA (European Water Resources Association) on Water Resources Management in a Changing World: Challenges and Opportunities, 10th -13th June, 2015, Istanbul, Turkey.
- Seminar on “EIA on Using Yeast Water in Irrigation”, 10th December, 2015, Jerusalem Hotel, Jordan, Amman-Jordan.
- International Conference on “Environment Engineering and Computer Application”, ICEECA2014, Dec. 25th and 26th, 2014, Hong Kong.
- International Conference on “Water in the Arab World: Status, Challenges and Opportunities. (WAWCO 2014)”, 25th -27th Feb. 2014, Amman, Jordan.
- Advanced SWAT modeling workshop. ICARDA, 15th - 26th June 2014, Amman- Jordan.
- Adaptation to extreme climatic events through sustainable land management options, Application of SWAT (Soil and Water Assessment Tool) Workshop, ICARDA, 7- 9th January 2014, Amman- Jordan.
- Attending a Workshop entitled by “Project to enhance water use efficiency in green schools” 19th January, 2015, Amman- Jordan.
- Attending a Lecture entitled by "The Jordanian Nuclear Project” 10th Nov. 2014, Amman-Jordan.
- Workshop on “Food Security”, 30th Nov 2013, South Shonah- Jordan,
- Water Day on “Renewable Energy”, 27th Nov 2013, Amman- Jordan.
- International Conference on “Biomedical Engineering and Environmental Engineering (ICBEEE2013)”, Dec. 1st-2nd, 2013, Singapore.
- Developing Partnerships Research Projects- USAID’s FABRI, IRESA, 14- 17th November 2012, Tunisia.
- International Conference on “Mediterranean Countries and EU Opportunities”, 22- 23th October 2012, Amman- Jordan.
- Public Engagement in Water Management Workshop, 3rd October 2012, Amman- Jordan.
- JOCHERA FP7 EU Forum, 6th June 2012, University of Jordan, Amman- Jordan.
- An International Conference concerning “Water Security in the Mediterranean Region, 13th May 2012, Amman- Jordan.
- 1st International Solar Energy Conference and 4th German- Jordanian Workshop 2012, 27th- 29th January 2012, Amman- Jordan.
- An International Conference concerning “Jordan European Union Higher Education Cooperation”, 27th November 2011, Amman- Jordan.

- The Fifth Conference on “Scientific Research in Jordan”, 19th November 2011, Amman, Jordan.
- Effect of Climate Change on Biodiversity Workshop, 6th June 2011, Amman- Jordan.
- Xeriscape Landscaping Workshop, 9th April 2011, Amman- Jordan
- World Water day, 28th March 2011, Amman- Jordan.
- The Second MELIA Project Workshop was on the “Technological Perspectives for Rational Use of Water Resources in the Mediterranean Region”, Marrakech, 29th - 2 November 2008, Morocco.
- The Third SOWAMED Workshop was on “Water and Land Use Planning”, 27th – 28th October 2008, Rabat- Morocco
- The First SOWAMED Workshop was on “Management of irrigated perimeters”, 1 – 3 June 2008, Amman- Jordan.
- The First MELIA Project Workshop was on “Water Culture and Water Conflict in the Mediterranean Region”, 22- 25th November 2007, Hammamet, Tunisia.
- World Environmental and Water Resources Congress (EWRI): Examining the Confluence of Environmental and Water Concerns, 21-25th May 2006, Omaha- Nebraska.
- The First International Conference was on “Sustainable Urban Wastewater Treatment and Reuse (SUWTR2005)”, 15th -16th September 2005, Nicosia- Cyprus.
- The Second International Conference was on “Wadi Hydrology”, 1- 4th July, 2003, Amman- Jordan.

TRAINING WORKSHOPS/ PROGRAMES

- 10th July, 2025, Training Session on “Employee Contribution to Achieving the Goals of The University of Jordan’s Strategic Plan,” organized by Accreditation and Quality Assurance Center, at Water, Energy, and Environment Centre (WEEC), Amman-Jordan.
- 29th-31st October, 2024, Training Session on “Two-Dimensional Hydraulic Modeling of Rivers at Highway Encroachment,” organized by the Illinois Assoc. for Floodplain and Storm water Management, Northern Illinois University (NIU) Naperville Campus, at Naperville, IL.
- 15th November, 2023, Training Session on “Choose the appropriate Journal **إختيار المجلة المناسبة**,” organized by the Deanship of Scientific Research, The University of Jordan, Amman- Jordan.
- 4th July, 2020, online Training Seminar on “Decentralized wastewater treatment and its applications within local communities” under program of sanitation for millions, Water, Energy and Environment Center in cooperation with German Agency (GIZ), The University of Jordan, Amman- Jordan.
- 8th December, 2019, Attendance in depth module in KETO DIET, Amman- Jordan.
- Training on “The use of radiation techniques to prepare nano-composites and use them in various applications”, University of Carthage and the Arab Energy Authority, 2-7th May 2016, League of Arab States, Bizerte- Tunisia.
- Introductory Training Workshop on “SWAT- Watershed Modeling Using SWAT”, 5- 6 January 2014, ICARDA, Amman- Jordan.
- Introductory Training Workshop about the “principles, use and applications of the Soil and Water Assessment Tool (SWAT)”, June 9-13th, 2013, ICARDA, Amman- Jordan.
- Developing Partnerships Research Projects- USAID’s FABRI, IRESA, 14- 17th November 2012, Tunisia.
- Research Proposal Development and Writing Training, 7- 10th October 2012, MEDRC- USAID, Muscat- Oman.
- Didactic Training for lectures of the IWRM MSc. Program, 14- 15th September 2012, Germany, Salt- Jordan.

- Training Course on “FP7 EU Program JOCHERA”, 4-5th June 2012, The University of Jordan, Amman- Jordan.
- Training Course on the “Impact of Climate Change on Watershed Management/ UNESCO”, 12-18th July 2008, Amman- Jordan.
- Training Course on “Hydrologic Modeling Using GIS and Hydrologic Modeling System (HEC-HMS)/ UNESCO”, 27–29th Aug 2006, The University of Jordan, Amman- Jordan.
- Training on “Water Ware Modeling EU Program”- Water Resource Model “WRM”, and Rainfall- Runoff Model “RRM” 4-5th April 2005, Izmir- Turkey.
- Fifth International Course on “Wadi Hydrology/ UNESCO”, Watershed Modeling System (WMS) software- Hands on Training, 2-9th July 2002, The University of Jordan, Amman- Jordan.

ACTIVITIES

- Rapporteur/Member of the “Risk Management Committee,” 2024-present.
- Rapporteur/Member of the “Excellence Award Matrix Committee” for the Water, Energy and Environment Center at the University of Jordan, 2024/2025.
- Member of the “Committee for the Evaluation of the Work of the Committees” at Water, Energy, and Environment Centre (WEEC), The University of Jordan, 2024-present.
- Rapporteur/Member of the “Website Committee” of the Water, Energy, and Environment Centre (WEEC), February 3rd and March 4th 2021-present
- Member of “The University of Jordan to Celebrate the Centenary of the Country”, September 2nd, 2020 till 2021, Amman- Jordan.
- Guest Editor at “Hindawi Press”, 2018-2019.
- Member in the “Organizing Committee of the 5th IWA International Symposium on Water and Wastewater Technologies in Ancient Civilizations: Evolution of Technologies from Prehistory to Modern Times”, September 11-13th, 2019, Dead Sea-Jordan.
<http://conferences.ju.edu.jo/en/IWA5/Pages/Organizing-Committee.aspx>
- Member of the “Committees of Procurement Bidding” for the University of Jordan, July, September, and October 2019, Amman- Jordan.
- Member of the “Technical Committee to Conduct Experiments and Observations on the Use of Sludge in the Treasury Lands Registered Pastures”, March 2016, Amman- Jordan.
- Member in the “European Water Resources Association (EWRA)”, May 2015.
- Member in the “Organizing Committee of the International Conference on Water in the Arab World: Status, Challenges and Opportunities” (WAWCO 2014), February 25-27th, 2014, Amman-Jordan.
<http://jordannetwork.net/sites/default/files/event-files/WAWCO%20English.pdf>
- Member in the MAPEC Program- European Commission, August 2012.
- Member in the Scientific Committee of TEPUS Program- Trans European Mobility Grants for University Studies- European Commission, 26th of January 2012.
- On the 28th of November 2011, CNRD Local Coordinator to represent University of Jordan’s Virtual Center- Germany.
- Member in the Scientific Research Foundation, Amman-Jordan.