



## **Maisa'a Wasif Shammout- PhD**

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### **EDUCATION**

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

**MSc in Environmental Sciences and Management**, The University of Jordan, Amman, Jordan, 1999

**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**

- Associate Researcher, Water, Energy, and Environment Centre, The University of Jordan, August 31, 2015- present
- 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, Shatanawi M** (2021) Water Supply-Demand Management and Cr(VI) Contamination: A Participatory Approach. *Bulletin of Environmental Contamination and Toxicology (BECT)* 106, 441–445 (2021).  
<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) (2021) 71-78.  
<http://bosajournals.com/chemint/images/pdffiles/21-8.pdf>

- Awwad AM, **Shammout MW**, Amer MW (2021) Fe (OH) <sub>3</sub>/kaolinite nanoplatelets: Equilibrium and thermodynamic studies for the adsorption of Pb (II) ions from aqueous solution. *Chemistry International* 7(2) (2021) 90-102. <http://bosajournals.com/chemint/images/pdffiles/21-10.pdf>
- 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) (2021) 139-144. <http://bosajournals.com/chemint/images/pdffiles/21-14.pdf>
- 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](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](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 16<sup>th</sup> International Conference on Environmental Science and Technology (CEST2019), Sept. 4-7<sup>th</sup>, 2019, Rodos Palace, Greece-Rodos. [https://cest2019.gnest.org/sites/default/files/presentation\\_file\\_list/cest2019\\_00538\\_oral\\_paper.pdf](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 30, 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](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>
- Shammout MW**, Shatanawi M, Nelson J (2018) Curve Number Applications for Restoration the Zarqa River Basin. *Sustainability* 2018, 10(3), 586; doi: 10.3390/su10030586. <https://www.mdpi.com/2071-1050/10/3/586>
- 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](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.
- 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/dtce/mcsse2016/10943. <http://dpi-proceedings.com/index.php/dtce/issue/view/126/showToc>
- 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. <http://dpi-proceedings.com/index.php/dtssehs/issue/view/127>
- 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.
- Shammout MW**, Zakaria H, Shatanawi M (2015) Participation of Farmers in the Management of Duckweed in the Jordan Valley. EWRA.
- Rahbeh M, **Shammout MW**, Ziadat F, Hadded M (2015) Evaluating sustainable land and water management practices in Zarqa River basin. The 7<sup>th</sup> 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](https://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](http://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 strategic 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/>.
- Shatanawi M, and **Shammout MW** (2011) Supply- Demand Modeling of Water Resources in Zarqa River Basin in Jordan. *International Journal of Applied Environmental Sciences (IJAES)*, Volume 6, Number 3, pp. 261- 278. <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 Mediterraneees, 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](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. [http://ressources.ciheam.org/util/search/detail\\_numero.php?mot=384&langue=en](http://ressources.ciheam.org/util/search/detail_numero.php?mot=384&langue=en)
- 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 Cambuzzi, Giuseppe Baldo, Francesco Pra Levis and Rodriguez R (2008) Conceptual Frame of Water Conflict in the Mediterranean. *Option Mediterraneees, 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 Zerqa 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 PROJECT**

- “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: 2019- 2022. 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

- International Conference on "Environmental Science and Technology (CEST2019)", 4-7<sup>th</sup> September 2019, [Rodos Palace](#), Greece- Rodos.
  - **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, 12<sup>th</sup> 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, 7<sup>th</sup> May 2018, The University of Jordan, Amman- Jordan.  
[http://ujnews2.ju.edu.jo/Lists/News/Disp\\_FormNewsConf.aspx?ID=9234](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”, 31<sup>th</sup> 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, 5-7<sup>th</sup> March 2018, Aqaba- Jordan.
  - A workshop on “Solid Waste Management in Jordan” December 19<sup>th</sup>, 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.
- 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”, 11-13<sup>th</sup> 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”, 1<sup>st</sup> August, 2017, Amman-Jordan.
- International Conference on "Water Management in Arid and Semi-Arid Lands”, 7-10<sup>th</sup> October 2017, JUST, Irbid, Jordan.
- Session on “Science to Innovation in the Arab World,” 5<sup>th</sup> 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”, 1<sup>st</sup>-2<sup>nd</sup> of February, 2016, Royal Scientific Research, Amman-Jordan.
- Seminar on " "Safety plan for reclaimed water use in agriculture”, 18<sup>th</sup> July 2016, Jordan Engineers Association, Amman-Jordan.
- Climate Change Scenario Modeling using Soil and Water Assessment Tool, ICARDA, 5- 7<sup>th</sup> 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, 14<sup>th</sup> 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, 10<sup>th</sup> -13<sup>th</sup> June, 2015, Istanbul, Turkey.
- Seminar on “EIA on Using Yeast Water in Irrigation”, 10<sup>th</sup> December, 2015, Jerusalem Hotel, Jordan, Amman-Jordan.
- International Conference on “Environment Engineering and Computer Application”, ICEECA2014, Dec. 25<sup>th</sup> and 26<sup>th</sup>, 2014, Hong Kong.
- International Conference on “Water in the Arab World: Status, Challenges and Opportunities. (WAWCO 2014)”, 25<sup>th</sup> -27<sup>th</sup> Feb. 2014, Amman, Jordan.
- Advanced SWAT modeling workshop. ICARDA, 15<sup>th</sup> - 26<sup>th</sup> 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- 9<sup>th</sup> January 2014, Amman- Jordan.
- Attending a Workshop entitled by “Project to enhance water use efficiency in green schools” 19<sup>th</sup> January, 2015, Amman- Jordan.

- Attending a Lecture entitled by "The Jordanian Nuclear Project" 10<sup>th</sup> Nov. 2014, Amman- Jordan.
- Workshop on "Food Security", 30<sup>th</sup> Nov 2013, South Shonah- Jordan,
- Water Day on "Renewable Energy", 27<sup>th</sup> Nov 2013, Amman- Jordan.
- International Conference on "Biomedical Engineering and Environmental Engineering (ICBEEE2013)", Dec. 1<sup>st</sup>-2<sup>nd</sup>, 2013, Singapore.
- Developing Partnerships Research Projects- USAID's FABRI, IRESA, 14- 17<sup>th</sup> November 2012, Tunisia.
- International Conference on "Mediterranean Countries and EU Opportunities", 22- 23<sup>th</sup> October 2012, Amman- Jordan.
- Pubic Engagement in Water Management Workshop, 3<sup>rd</sup> October 2012, Amman- Jordan.
- JOCHERA FP7 EU Forum, 6<sup>th</sup> June 2012, University of Jordan, Amman- Jordan.
- An International Conference concerning "Water Security in the Mediterranean Region, 13<sup>th</sup> May 2012, Amman- Jordan.
- 1<sup>st</sup> International Solar Energy Conference and 4<sup>th</sup> German- Jordanian Workshop 2012, 27<sup>th</sup>- 29<sup>th</sup> January 2012, Amman- Jordan.
- An International Conference concerning "Jordan European Union Higher Education Cooperation", 27<sup>th</sup> November 2011, Amman- Jordan.
- The Fifth Conference on "Scientific Research in Jordan", 19<sup>th</sup> November 2011, Amman, Jordan.
- Effect of Climate Change on Biodiversity Workshop, 6<sup>th</sup> June 201, Amman- Jordan.
- Xeriscape Landscaping Workshop, 9<sup>th</sup> April 2011, Amman- Jordan
- World Water day, 28<sup>th</sup> 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, 29<sup>th</sup>- 2 November 2008, Morocco.
- The Third SOWAMED Workshop was on "Water and Land Use Planning", 27<sup>th</sup> – 28<sup>th</sup> 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 - 25<sup>th</sup> November 2007, Hammamet, Tunisia.
- World Environmental and Water Resources Congress (EWRI): Examining the Confluence of Environmental and Water Concerns, 21-25<sup>th</sup> May 2006, Omaha- Nebraska.
- The First International Conference was on "Sustainable Urban Wastewater Treatment and Reuse (SUWTR2005)", 15<sup>th</sup> -16<sup>th</sup> September 2005, Nicosia- Cyprus.
- The Second International Conference was on "Wadi Hydrology", 1- 4<sup>th</sup> July, 2003, Amman- Jordan.

## **TRAINING WORKSHOPS/ PROGRAMES**

- 4<sup>th</sup> 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.
- 8<sup>th</sup> 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, 2-7<sup>th</sup> 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 9-13<sup>th</sup>, 2013, ICARDA, Amman- Jordan.
- Developing Partnerships Research Projects- USAID’s FABRI, IRESA, 14- 17<sup>th</sup> November 2012, Tunisia.
- Research Proposal Development and Writing Training, 7- 10<sup>th</sup> October 2012, MEDRC-USAID, Muscat- Oman.
- Didactic Training for lectures of the IWRM MSc. Program, 14- 15<sup>th</sup> September 2012, Germany, Salt- Jordan.
- Training Course on “FP7 EU Program JOCHERA”, 4-5<sup>th</sup> June 2012, The University of Jordan, Amman- Jordan.
- Training Course on the “Impact of Climate Change on Watershed Management/ UNESCO”, 12-18<sup>th</sup> July 2008, Amman- Jordan.
- Training Course on “Hydrologic Modeling Using GIS and Hydrologic Modeling System (HEC-HMS)/ UNESCO”, 27–29<sup>th</sup> Aug 2006, The University of Jordan, Amman- Jordan.
- Training on “Water Ware Modeling EU Program”- Water Resource Model “WRM”, and Rainfall- Runoff Model “RRM” 4-5<sup>th</sup> April 2005, Izmir- Turkey.
- Fifth International Course on “Wadi Hydrology/ UNESCO”, Watershed Modeling System (WMS) software- Hands on Training, 2-9<sup>th</sup> July 2002, The University of Jordan, Amman- Jordan.

## ACTIVITIES

- Member of the “Water, Energy, and Environment Centre (WEEC) Website”, February 3<sup>rd</sup> and March 4<sup>th</sup> 2021, The University of Jordan, Amman-Jordan.
- Participating in a Lecture on “Rehabilitation of al-Balqa’a Wastewater Treatment Plant”, February 9<sup>th</sup>, 2020, Professional Associations Complex, Amman-Jordan.
- Member of “The University of Jordan to Celebrate the Centenary of the Country”, September 2<sup>nd</sup>, 2020, Amman- Jordan.
- Guest Editor at “Hindawi Press”, 2018-2019.
- Member in the “Organizing Committee of the 5<sup>th</sup> IWA International Symposium on Water and Wastewater Technologies in Ancient Civilizations: Evolution of Technologies from Prehistory to Modern Times”, September 11-13<sup>th</sup>, 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 25-27<sup>th</sup>, 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, 26<sup>th</sup> of January 2012.
- On the 28<sup>th</sup> of November 2011, CNRD Local Coordinator to represent University of Jordan’s Virtual Center- Germany.
- Member in the Scientific Research Foundation, Amman-Jordan.

- Reviewer in Elsevier and Springer.

**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>