



KEY QUALIFICATION

I have more than 20 years of working experience in agricultural-environmental management practices as conservation agriculture, irrigation designing/scheduling/monitoring/evaluation, sustainable land management, land restoration, environmental impact assessments, climate change vulnerability and adaptation assessments, and other related soil-water-plant environmental topics based on very solid soil physics, irrigation, and math modelling backgrounds. This experience was gained through working with several national and international projects funded by national and international agencies. This work aided my long and advance experience in designing, monitoring, reporting, assessing, and evaluating national and international projects using proper approaches and advanced methodologies (field and laboratory analyses, advance statistical and modelling, spatial and temporal analyses) to provide guidelines, logistic, technical, and scientific findings, gap analyses, evaluations and extracting lesson learned and/or success stories.

Scopus Author ID: 36609779400

ORCID ID: <https://orcid.org/0000-0002-1012-6817>

EDUCATION

PhD. In **Environmental Soil Physics**. 2003. Department of Crop, Soil, & Environmental Sciences, Faculty of Agriculture, University of Arkansas, Arkansas, USA. Dissertation title: ***“Measuring & Modelling Soil Water & Solute Transport with Emphasis on Physical Mechanisms in Karst Topography”***. Advisor: Prof. Don H. Scott

M.S. In **Soil & Irrigation**. 1997. Department of Soil & Irrigation, Faculty of Agriculture, University of Jordan, Amman, Jordan. Thesis Title: ***“Infiltration and Soil Water Storage as Affected by Irrigation Methods in Al-Muwaqqar Region”***. Advisor: Prof. Ahmad Abu-Awwad

B.S. In **Soil & Irrigation**. 1994. Department of Soil & Irrigation, Faculty of Agriculture, University of Jordan, Amman, Jordan.

AREAS OF SPECIALIZATION

- Investigation of soil physical properties in relation to agricultural, engineering, and environmental aspects.
- Sustainable land management, conservation, rehabilitation, and restoration.
- Optimizing plant production through Soil-Water-Plant-Climate Relationship as SMART practices.
- Irrigation design, monitoring, evaluation, and management with respect to environmental resources and their sustainability.
- Climate change assessment, modelling, monitoring, mitigation, and adaptation using sustainable land management techniques, advance math modelling, remote sensing and GIS applications.
- Data mining, mathematical modelling, statistical inferencing, temporal and spatial applications of soil physical and environmental aspects.
- Contaminant solute, water, energy and gas transport modelling, prediction, testing and tracing in heterogeneous soil systems and Karst landscapes.
- Environmental impact assessment of soil and groundwater systems as affected by agricultural, urbanization, and other land uses.

WORK EXPERIENCES

2021 – 2023	Agriculture / Soil and Irrigation Management Expert, Ministry of Environment, Water, and Agriculture, KSA.
2020 – 2021	Associate Professor, Department of Land Management & Environment, Prince El Hassan Bin Talal Faculty of Natural Resource & Environment, Hashemite University, Zarqa, Jordan.
2019 – 2020	Associate Professor, Department of Land Management & Environment, Faculty of Natural Resource & Environment, Hashemite University, Zarqa, Jordan.
2018– 2019	Department Chairman, Department of Land Management & Environment, Faculty of Natural Resource & Environment, Hashemite University, Zarqa, Jordan.
2017– 2018	Vice Dean, Faculty of Natural Resource & Environment, Hashemite University, Zarqa, Jordan.
2015 –2017	Department Chairman, Department of Land Management & Environment, Faculty of Natural Resource & Environment, Hashemite University, Zarqa, Jordan.
2014 – Now	Associate Professor, Department of Land Management & Environment, Faculty of Natural Resource & Environment, Hashemite University, Zarqa, Jordan.
2010 – 2011	Vice Dean, Faculty of Natural Resource & Environment, Hashemite University, Zarqa, Jordan.
2008 – 2010	Dean Assistant, Faculty of Natural Resource & Environment, Hashemite University, Zarqa, Jordan.
2005 – 2006	Department Chairman, Department of Land Management & Environment, Faculty of Natural Resource & Environment, Hashemite University, Zarqa, Jordan.
2003 – 2014	Assistant Professor, Department of Land Management & Environment, Faculty of Natural Resource & Environment, Hashemite University, Zarqa, Jordan.
2000 – 2003	Graduate Assistant, Department of Crop, Soil, & Environmental Sciences, Faculty of Agriculture, University of Arkansas, Arkansas, USA.
1998 – 1999	Research and Teaching Assistant, Department of Land Management, Institute of Land, Water and Environment, Hashemite University, Zarqa, Jordan.
1997 – 1998	Research Assistant, Jordan Arid Zone Productivity Project, Faculty of Agriculture, University of Jordan, Amman, Jordan.
1994 – 1997	Teaching Assistant, Dept. of Soil Science & Irrigation, Faculty of Agriculture, University of Jordan, Amman, Jordan.

COMMUNITY SERVICES ACHIEVEMENTS

Outside the University

- Member of the National Committee to Combat Desertification in Jordan, Ministry of Environment, Amman, Jordan.
- Member of the Climate Change Thematic Research Group at the Ministry of Environment, Ministry of Environment, Amman, Jordan.
- Member of the Agriculture and Environment Technical and Consulting Council at the Higher Council for Scientific Research.
- Member of the Accreditation and Quality Assurance for Higher Education Institutional Council for Land, Water and Environment Program, Ministry of Higher Education and Scientific Research.
- Member of the Water Resources and Environment Division Committee, Jordanian Agriculture Engineers Association.
- Member of the steering committee to supervise the preparation of the national strategic document for Ministry of Environment entitled (Jordan Environment 2030)

Within the University:

- Member of Arid Land Academy Council 2016, 2017, 2018.
- Committee Member of the University Scientific Research, 2015, 2018.
- Committee Member of the University Graduate Studies 2014, 2017.
- Environmental Club Counsellor at the Hashemite University.
- Member of the Jordanian Ranking for Universities 2018, 2019.
- Member of the Academic Quality Assurance Council, Academic Quality Assurance at the Hashemite University.
- Member of University Research Participation in the 1st Student Scientific Research.
- Member of the development Committee to Identify and Evaluate the Effectiveness of Teaching Process.
- Member of the Election Commission in the Hashemite University.
- Committee Member of the Detailed Geological and Hydrological Maps Committee.
- Committee Member to Study the Draft Line Carrier and the Reuse of Treated Water to the University.
- Committee Member to Study the Draft Water Harvesting at the Hashemite University.
- Committee Member for the establishment of a Wastewater Treatment Plant at the Hashemite University.
- Committee Member to Identify and Record the Available Natural Resources in Zarqa Governorate.
- Committee Member for Studying the Hashemite Brigade afforestation Project to Reduce Pollution.
- Committee Member for the preparation of the (collapsed) and the Handbook on Faculty of Natural Resources and the Environment.
- Member of the College for the Tempus Foundation.
- Committee Member for investigating on the Impact of Wastewater Coming from Free Zones Corporation Hashemite University.
- Committee Member of the Environmental Activities at the Hashemite University.
- Committee Member of the Master Program entitled "Climate Change and Sustainable Land Management", directed and funded by MAPEC, 2013/2015.
- University Committee Member for updating the Educational Curriculum, 2014.
- Consultant for the university committee to establish Arid Lands Academy (ALA) at the HU campus, 2014.
- Member of Program entitled "Development of Interdisciplinary Programmes on Climate Change & Sustainability Policy (CLIMASP)" Funded by TEMPUS, 2014.
- Member of the Program entitled "Geodesy and Geoinformatics for Sustainable Development in Jordan (GEO4D)" Funded by Erasmus+, 2017.
- Chairman of the Potential Trees and Plants Plantation Booklet, 2018.

Within the Faculty:

- Vice Dean of the Faculty of National Resources and Environment.
- Dean Assistant for students' affairs at the Faculty of National Resources and Environment.
- Head and member of Land Management and Environment Department Council.
- Member of Faculty of Natural Resources & Environment Council.
- Department and Faculty head and member of the Undergraduate Programs Committee.
- Department and Faculty head and member of the Appointment and Promotion Committee.
- Department and Faculty Council head for Student Training.
- Department and Faculty head and member of the Postgraduate Programs Committee.
- Department and Faculty head and member of the Scientific Research Committee.
- Member of the Scientific Journals and Text Books Committee.
- Department and Faculty head and member of the Examination Committee.
- Department and Faculty head and member of the Students Curriculum.
- Department and Faculty head and member of the Technical Scientific Laboratories Equipment Committee.
- Department and Faculty head and member of the Workshops and Seminars Committee.
- Department and Faculty head and member of the Association Council.

- Head and Member of the Faculty Budget Committee.
- Department and Faculty head and member of the University and Society Committee.
- Head of the Faculty Web Site Development Committee at the Faculty.
- Department and Faculty head and member of the Students Discipline Committee.
- Department and Faculty head and member of the Committee on Stimulating Students' Enrolment for the Master Programs Offered in the Faculty.
- Department and Faculty head and member of the Student Guidance Committee.

ATTENDED CONFERENCES & WORKSHOPS

1. **Jordanian Youth Climate Conference.** 7-8 August 2021. Green Generation Foundation, Liwan Youth Space, Amman, Jordan. Presenting the "**Modeling and expected impacts on climate change**".
2. **The Supervisory Role of Private Desalination Plants between the Standard and Reality.** 18th March 2021, Jordan Agricultural Engineers Association, Amman, Jordan.
3. **Renewables Readiness Assessment (RRA) Jordan,** 22 February 2021, organized by the International Renewable Energy Agency (IRENA) in partnership with the Ministry of Energy and Mineral Resources (MEMR).
4. **Nexus - Energy Security,** within the context of the development of the National Environment Strategy 2030. 26 November 2020. Amman, Jordan.
5. **Strategic Thinking with Scenarios: Using Scenario Planning Techniques for Understanding the Cause-Effect Relationship of Complex Systems.** 23- 26 November 2020. UNDP, Aqaba City, Jordan.
6. **Organic Farming in Jordan.** 14th November 2021, Jordan Agricultural Engineers Association, Amman, Jordan.
7. **Climate Change and its Impact on Biodiversity.** 12th November 2021, Jordan Agricultural Engineers Association, Amman, Jordan.
8. **The Debate on Future Strategies to cope with Agricultural Water Scarcity and Climate Change.** 5th November 2020. The Islamic World Academy of Sciences (IAS) and Association of Agricultural Research Institutions in the Near East & North Africa (AARINENA).
9. **The publishing landscape in the Arab World.** 22 June, 2020. Researcher Academy On Campus. at AARU, Elsevier.
10. **Airborne LiDAR Practical Applications.** 8th March 2020. GEO4D Co-funded project, Erasmus +, European Union, The Hashemite University, Zarqa, Jordan.
11. **Project for the preparation of the fourth national communications report and the second emission update. Project launch ceremony.** 5th August 2019, Ministry of Environment and funded by UNDP and GEF, Amman, Jordan.
12. **Building Capacity for International University Cooperation and Research Collaboration.** 24-26 June 2019. International Conference and Workshop, U.S.- Jordanian University Cooperation Network (UCN), University of Jordan, Amman, Jordan.
13. **National High Level Workshop for Supporting National Action and Planning on Short-Lived Climate Pollutants SNAP on (SLCPs) project.** 18th April 2019. Grand Hayat Hotel, UNEP, Ministry of Environment, Amman, Jordan.
14. **First National Conference on Environment and Development in Jordan.** 6-7 November 2018. GEF, UNDP, GoALWaSH, UNDP, Amman, Jordan.
15. **The Eighth Scientific Agricultural Conference (ESAC).** 15-17th October 2018. Mutah University, Karak, Jordan.
16. **NAP Communication Plan Focus Group meeting.** 11th October 2018. GIZ, Amman, Jordan.
17. **First Jordanian International Agricultural Forum and Exhibition.** 25th April 2018. King Hussein Bin Talal Convention Center, Dead Sea, Jordan.
18. **Outline and Scope of the NAP Document for Jordan.** Stakeholders' Consultation Workshop. (26th to 27th March 2018). Ministry of Environment in cooperation with GIZ, Movenpick Hotel, Dead Sea, Jordan.
19. **Jordan Water Day** (20th March 2018). Department of Water Management and Environment, Faculty of Natural Resources and Environment, The Hashemite University, Zarqa Jordan

20. **Jordan Forest Week.** 14th March 2018. Organized by the Alliance of Forests Societies and the Hashemite University, The Hashemite University, Zarqa Jordan.
21. **Jordan Zero Hunger Strategic Review.** Stakeholders' Consultation Workshop. 8th February 2018. World Food Programme (WFP) in corporation with Higher Council for Science and Technology, Amman, Jordan.
22. **Enhancing the Capacities for Disaster Risks Reduction and for National Crisis Management Including the Coordination of International Response in Jordan** (December 2017 – May 2019). 5th February 2018. Twinning Project "Towards a Resilient Society" between Ministry of Planning and International Cooperation of the Hashemite Kingdom of Jordan and the Administration of the Republic of France (Ministry of Interior – General Directorate for Civil Protection and Crises Management) and the final recipient of the action in Jordan Civil Defence General Directorate, Amman, Jordan.
23. **National Adaptation Planning in Jordan: Current Situation and Future Areas of GIZ Support.** 29th August 2017, Ministry of Environment in cooperation with the Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ), Amman, Jordan.
24. **NAP Training and Stocktaking Workshop for the National Adaptation Plan (NAP) Process in Jordan.** 27th February to 1st March 2017, Ministry of Environment in cooperation with the Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ), Dead Sea, Jordan.
25. **National Workshop on NDCs Review and Implementation: Prioritizes and Future Steps.** February 7th 2017. GIZ, Ministry of Environment, Amman, Jordan.
26. **Setting National Land Degradation Neutrality Targets for Jordan, Inception Workshop.** January 19th 2017, Ministry of Environment, Amman, Jordan.
27. **Climate Change Technology Needs Assessment (TNA), National Workshop no. IV (TAPs Development).** 18-19 December, 2016, AlMakan, Ministry of Env., UNEP DTU, Dead Sea, Jordan.
28. **Jordan NDCs review and prioritization and the Climate Action Road After COP 22.** November 28th, 2016. GIZ, Ministry of Environment, Amman, Jordan.
29. **Climate Change COP22: Jordan's investment and private sector opportunities.** October 27th, 2016. EDAMA, GIZ, Amman, Jordan.
30. **From Paris to Marrakech: Expectations from COP 22 and Jordanian Perspectives.** 9th October 2016. Ministry of Environment, GIZ, Amman, Jordan.
31. **Yarmouk River Hydropolitical Baseline.** 28th May 2016. Swiss Development. Swiss Development Corporation, Water Security Research Centre / School of International Development at the University of East Anglia. Amman, Jordan.
32. **Climate Change Technology Needs Assessment (TNA), National Workshop no. III (Barrier Analyses and Enabling Framework).** 10-11 May, 2016, AlMakan, Ministry of Env., UNEP DTU, Dead Sea, Jordan.
33. **Rio Conventions in the Development Sectors Project – (RIO).** Consultive Workshop with National Rio Committees' Members. 20th April 2016. Ministry of Env., GEF, UNDP.
34. **Climate Change and Paris Agreement "From Paris to Amman",** 15th Feb. 2016, UNDP, MoEnv, Amman, Jordan.
35. **INDCs Implementation in Jordan and the Post Paris Roadmap.** 9th Feb. 2016, GIZ, Amman, Jordan.
36. **Climate Change Technology Need Assessment (TNA) Project.** 17th November 2015. Ministry of Environment, UNEP DTU Partnership, AlMakan, Amman, Jordan.
37. **Quality Assurance Standards Guide for Agriculture Science Program.** January 2016. Higher Education Accreditation Commission, Amman, Jordan.
38. **Predicting Future Climate Change at the Hashemite Kingdom of Jordan.** Within Conference titled "Climate Change: Status and Challenges". Jordanian Agriculture Engineering Association, Amman, Jordan, 2/9/2015.
39. **Jordanian Experience with Climate Change Studies,** within MAPEC annual workshop, University of Jordan, Amman, Jordan, 1/9/2015.
40. **National Conference for National Master Plan to Rehabilitate the Jordan River Valley.** 9th May, 2015. Ministry of Water and Irrigation, Royal Haskoning DHV, EcoPeace Middle East, SIWI, GNF, EU. Crown Plaza Hotel, Dead Sea, Jordan.
41. **Dynamic Downscaling of climate change scenarios for Jordan,** within **Workshop on Development Of Statistical Downscaling of Climate Change Scenarios,** Corp Executive Hotel, Amman, Jordan, 14-16/12/2014.

42. **Workshop for Advisory Studies to update the national strategy and action plan to combat desertification and the update of the national strategy and the action plan for biodiversity in Jordan.** Including the preparation of the Fifth National Report (2014) of the United Nations Convention on biodiversity (UNCBD), and Preparation of Fourth National Report (2012) and Fifth National Report (2014) of the United Nations Convention to Combat Desertification (UNCCD). 14th of August, 2014. Ministry of Environment, Amman, Jordan.
43. **Third National Communication Project "Vulnerability and Adaptation" Chapter, Results Dissemination Workshop.** June 2014, Ministry of Environment, Amman, Jordan.
44. **Third National Communication Project "GHG Inventory", Results Dissemination Workshop.** August 2013, Ministry of Environment, Amman, Jordan.
45. A workshop to present the results of a public opinion titled "**Measuring knowledge of climate in Jordan**". Ministry of Environment in cooperation with Royal Scientific Society and UNDP, September 2013, Amman, Jordan.
46. The launch workshop for "**National Climate Change Policy for the Hashemite Kingdom of Jordan**". Ministry of Environment in cooperation with National Energy Research Center and UNDP, May 2013, Amman, Jordan.
47. **Climate Change Impacts on Ecosystems Biodiversity.** The Royal Society for Conservation of Nature. February 2013, Amman, Jordan.
48. **The integrated Ecosystem Management in the Jordan Rift Valley Project,** 2012, RSCN, Amman, Jordan.
49. **Developing a National Climate Change Policy for the Hashemite Kingdom of Jordan,** Developing Policy-relevant Capacity for Implementation of the Global Environmental Conventions in Jordan "CB2" Project, November 2012, UNDP, Amman, Jordan.
50. **Enabling Activities for the Preparation of Jordan's 3rd National Communication Report to UNFCCC,** 2012, UNDP, Amman, Jordan.
51. **Prototype Display Workshop for CB-2 Project's Virtual Platform and Jordan Environmental Information System (JEIS),** 2012, UNDP, Amman, Jordan.
52. **Developing Policy-Oriented Research Guidelines, Procedures, and Tools to Support Implementing Rio Conventions in Jordan,** 2012, FAO, Amman, Jordan.
53. **Strategy of Adaptation of Biodiversity to Climate Change in Jordan,** 2012, RSCN, Amman, Jordan.
54. **Assessment of the risks from Climate Change and Water Scarcity on Food Productivity.** 2012, FAO, Amman, Jordan.
55. **Development of Adaptation Measures to Climate Change and Formulation of Needed Strategy Implementation Plan Relevant to Climate Change and IWRM for the Zarqa River Basin,** 2011, UNDP, Amman, Jordan.

Preparatory and Scientific Organizing Committees for Conferences and Workshops

1. Preparatory Committee Member of the Scientific Day titled "**The Mainstreaming of the Ecosystem Services Approach and Networking among Universities of Jordan**", 17th August 2017, Ministry of Environment, supported by the Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ), on behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ), Hosted at the Faculty of Natural Resources and Environment, Hashemite University, Zarqa, Jordan.
2. Preparatory Committee Member of the Scientific Day for the Faculty of Natural Resources and Environment titled "**GIS and RS Applications in Natural Resources Management**", 13 April 2017, Faculty of Natural Resources and Environment, Hashemite University, Zarqa, Jordan.
3. Preparatory Committee Member of the Seventh Scientific Day for the Faculty of Natural Resources and Environment titled "**Petroleum Resources in Jordan**", 9th April 2013, Faculty of Natural Resources and Environment, Hashemite University, Zarqa, Jordan.
4. Preparatory Committee Member of the Sixth Scientific Day for the Faculty of Natural Resources and Environment titled "**Climate Change in Jordan and its impacts on Human and Environment**", 24-25th March 2012, Faculty of Natural Resources and Environment, Hashemite University, Zarqa, Jordan.

5. Preparatory Committee Member of the conference "**Fifteenth World Conference of Vulcanospeleology**", 15th March 2012, Center for Environmental Studies (CES), Hashemite University, Zarqa, Jordan.
6. Scientific Evaluation Committee Member of "**The Second Zarqa Scientific Engineering**" Workshop, 24-25 November 2010, Engineering Association, Private Zarqa University, Zarqa, Jordan.
7. Preparatory Committee Member of the Fifth Scientific Day for the Faculty of Natural Resources and Environment titled "**Recycling in Jordan: a National Need**", 14-15 April 2009, Faculty of Natural Resources and Environment, Hashemite University, Zarqa, Jordan.
8. Preparatory Committee Member of the Workshop "**Jojoba Trees-The Golden Green**", 26 October 2008, Faculty of Natural Resources and Environment, Hashemite University, Zarqa, Jordan.
9. Preparatory Committee Member of the Fourth Scientific Day for the Faculty of Natural Resources and Environment titled "**Sustaining and Developing Water Resources in Jordan**", 22 April 2008, Faculty of Natural Resources and Environment, Hashemite University, Zarqa, Jordan.
10. Preparatory Committee Member of the Third Scientific Day for the Faculty of Natural Resources and Environment titled "**The GIS Role in Planning Cities and Land Use**", 11-13 December 2007, Faculty of Natural Resources and Environment, Hashemite University, Zarqa, Jordan.
11. Preparatory Committee Member of the Workshop "**Renewable Energy in Jordan**", 8-12 May 2007, Faculty of Natural Resources and Environment, Hashemite University, Zarqa, Jordan.
12. Preparatory Committee Member of the Workshop "**The 6th Agricultural Scientific Conference**", 9-12 April 2007, Faculty of Agricultural, University of Jordan, Amman, Jordan.
13. Preparatory Committee Member of the Workshop "**Environment and Sustainable Development**", May 24th 2006, Faculty of Natural Resources and Environment, Hashemite University, Zarqa, Jordan.
14. Preparatory Committee Member of the Second Scientific Day for the Faculty of Natural Resources and Environment titled "**The Role of Environmental Geological Sciences in Sustaining the Economy of Jordan**", 3-5 December 2006, Hashemite University, Zarqa, Jordan.
15. Preparatory Committee Member of the Workshop "**The Energy in Jordan, Current and Future**", 1 November 2005, Faculty of Natural Resources and Environment, Hashemite University, Zarqa, Jordan.
16. Preparatory Committee Member of the 5th Agricultural Scientific Conference, (12 – 15) May 2005, Under the theme: "**Towards Sustainable Agriculture in the Arabic World**", The Faculty of Agricultural Technology, At Al-Balqa' Applied University, Al-Salt, Jordan.
17. Preparatory Committee Member of the "**Environmental Week**", 3-6 May 2004, Faculty of Natural Resources and Environment, Hashemite University, Zarqa, Jordan.

PUBLICATIONS

1. Hasan Salem Alkhaza'leh, Ahmad Moh'd Abu-Awwad, and Mohammed Ibrahim Al-Qinna. 2023. **Effect of Irrigation with Treated Wastewater on Squash Yields, Soil Chemical and Microbial Properties**. Jordan Journal of Agricultural Sciences, Volume 19, No. 2, 2023, DOI: <https://doi.org/10.35516/jjas.v19i2.164>.
2. Ibrahim Al-Hasani, Mohammed Al-Qinna, and Nezar Atalla Hammouri. 2023. **Potential Impacts of Climate Change on Surface Water Resources in Arid Regions Using Downscaled Regional Circulation Model and Soil Water Assessment Tool, A Case Study of Amman-Zerqa Basin, Jordan**. Climate 2023, 11, 51. <https://doi.org/10.3390/cli11030051>
3. Nabeel Bani Hani, Fakher J. Aukour, and Mohammed I. Al-Qinna. 2022. **Investigating the Pearl Millet (*Pennisetum glaucum*) as a Climate-Smart Drought-Tolerant Crop under Jordanian Arid Environments**. Sustainability 2022, 14, 12249. <https://doi.org/10.3390/su141912249>.
4. Mashal, K.; Ali, Y.; Al-Qinna, M.; Salahat, M.; Al-Degs, Y.S. 2022. **Spatial distribution of sulfur accumulation in urban dust and its societal implications in Al Hashemiya, Jordan**. Environmental Quality Management, 31(3): 79-87. DOI: 10.1002/tqem.21755.
5. Jawad Al-Bakri, Ibrahim Farhan, Mohammed Al-Qinna, Emad Al-Karablieh, Karim Bergouli, Rachael McDonnell. 2021. **Assessment of Climate Changes and Their Impact on Barley Yield in**

- Mediterranean Environment Using NEX-GDDP Downscaled GCMs and DSSAT***. Earth Systems and Environment, Springer. Accepted: 11 June 2021, Published online 16 June 2021, <https://doi.org/10.1007/s41748-021-00238-1>
6. Ayat Al Qudah, Munir J. Rusan, Mohammed I. Al-Qinna, and Fayez A. Abdulla. 2021. ***Climate change vulnerability assessment for selected agricultural responses at Yarmouk River Basin Area, Jordan***. Mitigation and Adaptation Strategies for Global Change, (2021) 26:3. <https://doi.org/10.1007/s11027-021-09944-7>
 7. Qtaishat, T. H., AlAdaileh, H., El-Habbab, M. S., Al-Qinna, M., and Emad K. Al-Karablieh. 2019. ***Drought Management Policies and Institutional Mandate in Jordan***. 1st International Conference on Sustainable Energy-Water-Environment Nexus in Desert Climate – QEERI, December 2019.
 8. Haitham AlAdaileh, Mohammed Al-Qinna, Károly Barta, Emad Al-Karablieh, János Rakonczai, Adel Alobeiaat. 2019. ***A Drought Adaptation Management System for Groundwater Resources Based on Combined Drought Index and Vulnerability Analysis***. Earth Systems and Environment, 3:445–461. <https://doi.org/10.1007/s41748-019-00118-9>
 9. Haitham AlAdaileh, Mohammed Al-Qinna, Károly Barta, Emad Al-Karablieh, Jawad Al Bakri, János Rakonczai. 2019. ***Applicability of a Combined Drought Index to Monitoring Drought in Jordan***. Journal of Engineering Research and Application, 9(7) (Series -VI) July 2019, pp 20-39. DOI: 10.9790/9622- 0907062039.
 10. Haitham AlAdaileh, Mohammed Al-Qinna, Barta Karoly, Emad Al-Karablieh and János Rakonczai. 2019. ***An Investigation into the Spatial and Temporal Variability of the Meteorological Drought in Jordan***. Climate 2019, 7(82): 1-25; doi:10.3390/cli7060082
 11. Jafar S.A. Abu-Rajab, Ali R.A. El-Naqa, Mohammed I. Al-Qinna. 2018. ***Hydrogeophysical characterization of shallow LNAPL contamination at a karst aquifer***. Near Surface Geophysics, 16: 643-662. Doi: 10.1002/nsg.12021
 12. Jwan H. Ibbini, Mohammed I. Al-Qinna, Kholoud Y. Mashal, Jamila Abuidhail, Kareem H. Alzoubi and Majed M. Masadeh. 2018. ***Are Clay Minerals in Jordanian Soils Antibacterial?*** Jordan Journal of Earth and Environmental Sciences (JJEES), 9(2): 108-115.
 13. Mohammed I. Al-Qinna. 2018. ***Analyses of Climate Variability in Jordan using Topographic Auxiliary Variables by the Cokriging Technique***. Jordan Journal of Earth and Environmental Sciences (JJEES), 9(1):67-74.
 14. Kholoud Mashal, Mohammed Al-Qinna, Mohammed Salahat, and Yahya Ali. 2017. ***Assessment of Heavy Metals in Urban Areas of Al-Hashmiyya City of Jordan***. Jordan Journal of Earth and Environmental Sciences (JJEES), 8(2):61-67.
 15. Al-Qinna, Mohammed I. and Salahat, Mohammed Ali. 2017. ***Investigating Agricultural Management Practices and Environmental Sustainability in Jordan***. Journal of Environmental Sustainability: Vol. 5, Issue 1, Article 1.
 16. Salahuddin M. Jaber and Mohammed I. Al-Qinna. 2017. ***TM-Based SOC Models Augmented by Auxiliary Data for Carbon Crediting Programs in Semi-Arid Environments***. Journal of Photogrammetric Engineering and Remote Sensing, 83(6): 447-457
 17. Mohammed A. Salahat, Mohammed I. Al-Qinna, Raed A. Badran. 2017. ***Potential of treated wastewater usage for adaptation to climate change: Jordan as a success story***. Water Resources in Arid Areas: The Way Forward pp 383-405.
 18. Taiseer Aljazzar, and Mohammed Al-Qinna. 2016. ***Assessment of nitrate transport parameters using the advection-diffusion cell***. Environ Sci. Pollut Res., 23(22):23145–23157. DOI 10.1007/s11356-016-7457-8.
 19. Mohammed Salahat, Al-Qinna Mohammed. March 2016. ***Potential of treated wastewater usage for adaptation to climate change: Jordan as a success story***. International Water Conference on Water Resource in Arid areas: The Way Forward. Sultan Qaboos University, Muscat, Oman.
 20. Nezar Hammouri, Mohammad Al-Qinna, Mohammad Salahat, Jan Adaoweski, Parsher Frisher. ***Community based adaptation options for climate change impacts on water resources: The case of Jordan***. Journal of Water and Land Development, 2015, No. 26 (VII–IX): 3–17, JWLD-00010-2015-02.
 21. Mohammed Salahat, Al-Qinna Mohammed. 2015. ***Rainfall fluctuation for exploring desertification and climate change: new aridity classification***. Jordan Journal of Earth and Environmental Sciences (JJEES), 7(1):27-35.

22. Salahuddin M. Jaber and Mohammed I. Al-Qinna. 2015. **Global and local modelling of surface soil organic carbon using Thematic Mapper data in a semi-arid environment**. Arabian Journal of Geosciences, 8:3159-3169, DOI 10.1007/s12517-014-1370-6.
23. Kholoud Mashal, Mohammed Salahat, Mohammed Al-Qinna, Yahya Al-Degs. 2015. **Spatial distribution of cadmium concentrations in street dust in an arid environment**. Arabian Journal of Geosciences. 8(5):3171-3182, DOI: 10.1007/s12517-014-1367-1
24. Al-Qinna Mohammed, Scott H. Don, Brye Kristofor R., Van Brahana John, Sauer Thomas J., Sharpley, Andrew. 2014. **Coarse Fragments Affect Soil Properties in a Mantled-Karst Landscape of the Ozark Highlands**. Soil Science. January 2014, 179(1):42–50, DOI: 10.1097/SS.0000000000000034
25. Mohammed Salahat, Mohammed Al-Qinna, Kholoud Mashal, Nezar A. Hammouri. 2014. **Identifying major factors controlling groundwater quality in semiarid area using advanced statistical techniques**. Journal of Water Resources Management, 28(11):3829-3841. DOI 10.1007/s11269-014-0712-1.
26. Mustafa Al Kuisi, Kholoud Mashal, Mohammed Al-Qinna, Abdallah Abu Hamad, Armin Margana. 2014. **Groundwater Vulnerability and Hazard Mapping in an Arid Region: Case Study, Amman-Zarqa Basin (AZB)-Jordan**. Journal of Water Resource and Protection, 2014(6): 297-318. <http://dx.doi.org/10.4236/jwarp.2014.64033>
27. Abeer Salman, Mohammed Al-Qinna, Mustafa Al-Kuisi. 2014. **Spatial Analysis of Soil and Shallow Groundwater Physicochemical Parameters in El-Mujib Basin-Central Jordan**. Journal of Asian Earth Sciences 79 (2014):366-381. DOI information: 10.1016/j.jseaes.2013.10.008.
28. Kholoud Mashal, Yahya S. Al-Degs, Mohammed Al-Qinna, Mohammed Salahat. 2014. **Elucidation of Phosphorous Sorption by Calcareous Soils using Principal Component Analysis**. Journal of Chemistry and Ecology. 30(2):133-146. Taylor & Francis Online. DOI:10.1080/02757540.2013.841895.
29. Mohammed I. Al-Qinna, Mohammed Salahat, Kholoud Mashal. 2014. **Solute Transport as Affected by Surface Land Characteristics in Gravely Calcareous Arid Soils**. Arabian Journal of Geosciences. 7(5):1965-1972. (DOI) 10.1007/s12517-013-0949-7.
30. Mohammed Al-Omari, Mohammed Al-Qinna, Amer Shareef. 2013. **The future of Agricultural Education in Jordan**. Presented at the National Agriculture Conference entitled “Chances and Chalenges”, July 2013, Amman, Jordan.
31. Mohammed I. Al-Qinna and Salahuddin M. Jaber. 2013. **Predicting Soil Bulk Density Using Advanced Pedo-Transfer Functions in an Arid Environment**. Transactions of the ASABE, 56(3): 963-976.
32. Salahuddin M. Jaber and Mohammed I. Al-Qinna. 2011. **Soil Organic Carbon Modeling and Mapping in a Semi-Arid Environment Using Thematic Mapper Data**. Photogrammetric engineering and remote sensing, 77(7): 709-719.
33. Salahuddin M. Jaber, Christopher L. Lant, and Mohammed I. Al-Qinna. 2011. **Estimating spatial variations in soil organic carbon using satellite hyperspectral data and map algebra**. International Journal of Remote Sensing, 32(18): 5077-5103.
34. Kholoud Mashal, Mohammed Al-Qinna, Jwanlbini. 2011. **Phosphorus-Sorption Characteristics of Calcareous Soils in Arid and Semi Arid Regions**. Int. J. of Sustainable Water and Environmental Systems 3(1):53-58. Presented at the International Conference on Energy, Water, and Environment (ICEWE 2010), Amman, Jordan.
35. Mohammed I. Al-Qinna, Nezar A. Hammouri, Mutewakil M. Obeidat, Fayez Y. Ahmad. 2011. **Drought Analysis in Jordan under Current and Future Climates**. Journal of Climatic Change, 106(3):421-440.
36. Mohammed I. Al-Qinna. 2010. **The Main Structure and Land Use in Plant-Agricultural Holdings**. Analysis Results of the Agricultural Census, 2007, Department of Statistics.
37. Abeer Salman, Khalil M. Ibrahim, Ghazi Saffarini, and Mohammad Al-Qinna. 2009. **Geostatistical Calculation for Clay Reserve in Azraq Basin in Jordan**. Journal of Geography and Regional Planning, 2(5):144-153.
38. Mustafa Al Kuisi and Mohammed I. Al-Qinna. 2009. **Spatial Assessment of Salinity and Nitrate Pollution in Amman-Zarqa Basin: A Case Study**. Journal of Environmental Earth Sciences, 59(1):117-129.
39. Kholoud Mashal, Mohammed Al-Qinna, and Yahya Ali. 2009. **Spatial Distribution and Environmental Implications of Lead and Zinc in Urban Soils and Street Dusts Samples in Al-Hashimeyeh Municipality**. Jordan Journal of Mechanical and Industrial Engineering, 3(2): 141-150.

40. Mohammed I. Al-Qinna, Mohammed A. Salahat, and Ziad N. Shatnawi. 2008. ***Effect of Carbonates and Gravel Contents on Hydraulic Properties in Gravely-Calcareous Soils***. Dirasat, Agricultural Sciences, 35(3):145-158.
41. Fakher J. Aukour and Mohammed I. Al-Qinna, 2008. ***Marble Production and Environmental Constrains: Case Study from Zarqa Governate in Jordan***. Jordan Journal of Earth and Environmental Sciences (JJEES), 1(1):11-21.
42. Mohammed I. Al-Qinna. 2005. ***Potential of Groundwater Contamination of Karstic Aquifer: A Case Study***. Proceeding of the workshop of Aquifer Vulnerability & Risk in Jordan, UNESCO, Hashemite University, Zarqa, Jordan, 158-212.
43. M. Al-Qinna, H.D. Scott and V. Brahana, 2005. ***Characterization of Solute Transport in Pedons within Mantled Karst Landscape***. The 5th Agricultural Scientific Conference, (12 – 15) May 2005, Under the theme: “Towards Sustainable Agriculture in the Arabic World”, The Faculty of Agricultural Technology, At Al-Balqa’ Applied University, Al-Salt, Jordan.
44. Brahana, J.V., TiongEe Ting, Mohammed Al-Qinna, John F. Murdoch, Ralph K. Davis, JozefLaincz, Jonathan J. Killingbeck, Eva Szilvagy, Margaret Doheny-Skubic, IndrajeetChaubey, P.D. Hays, and Gregg Thoma. 2005. ***Quantification of Hydrologic Budget Parameters for the Vadose Zone and Epikarst in Mantled Karst***. U.S. Geological Survey Karst Interest Group Proceeding, Rapid City, South Dakota, USA, 144-152.
45. Brahana, J.V., Davis, R.K., Sauer, T.J., Ting, TiongEe, Al-Rashidy, Said, Whitsett, Kelly, and Al-Qinna, Mohammed, 2002, ***Recurring, multicomponent ground-water tracing experiments at a well characterized basin in mantled karst--Lessons from the Savoy Experimental Watershed***. Geological Society of America, Paper Number 69-14, Abstracts with Programs, v. 34, no. 6, p. 158-159, Denver Annual Meeting (October 27-30, 2002).
46. M. Al-Qinna, A. Mauromoustakos, and H.D. Scott. 2002. ***Use of JMP Version 5 for Teaching and Research of Applied Stat/Math Methods in Life Sciences***. Annual Meetings Abstracts. ASA-CSSA-SSSA. Indianapolis, USA.
47. Mohammed Qinna and A.M. Abu-Awwad. 2001. ***Wetting Patterns under Trickle Source in Arid Soils with Surface Crust***. J of Agriculture Engineering Research. 80(3):301-305.
48. Mohammed Qinna and A.M. Abu-Awwad. 1998. ***Soil Water Storage and Surface Runoff as Affected by Irrigation Methods in Arid Soils with Surface Crust***. Agricultural Water Management Journal, 37(3):189-203.
49. Mohammed Qinna and A.M. Abu-Awwad. 1998. ***Infiltration Rate Measurements in Arid Soils with Surface Crust***. Irrigation Science. 18: 83-89.

Journal Reviewing & Evaluation Experience

1. Assistant Editor of the Jordan Journal of Earth and Environmental Sciences (JJEES)
2. Peer reviewer for the following Journals:
 - Soil Science Society of America
 - Soil Research
 - Journal of Arid Environments
 - Arabian Journal of Geosciences
 - Journal of Applied Sciences
 - Journal of Atmosphere
 - Journal of Hydrology and Earth System Sciences
 - Journal of Environmental Management
 - Jordan Journal for Agricultural Sciences
 - Jordan Journal of Earth and Environmental Sciences
 - Mutah Lil -Buhuth Wad-Dirasat

Supervised M.Sc. & Ph.D. Thesis

1. ***Assessing The Hydrologic Vulnerability to Climate Change Impacts at Amman- Zarqa Basin, Jordan (Committee member)***. By M.Sc. Rihan Ahmad Al Saodi. January 2022. Master Degree of Environmental Technology and Climate Changes, Faculty of Graduate Studies, University of Jordan, Amman, Jordan.
2. ***Measurements of the Aerosol Particles Concentrations Emitted from Indoor Kerosene Heaters (Committee member)***. By M.Sc. Nezar Maher Albqour. August 2021. Degree of (Master of Science) in Physics, Faculty of Graduate Studies, University of Jordan, Amman, Jordan.
3. ***Soil Erosion Assessment and Control in Wadi Mujib Using GIS and Remote Sensing (Co-advisor)***. By M.Sc. Heba Saleh Tayseer AL-Malkawi. August 2021. Degree of (Master of Science) in Applied Geology, Faculty of Graduate Studies, the Hashemite University, Zarqa, Jordan.
4. ***Impact of TWW on Soil and Crops Irrigated Using Drip and Sprinkler Systems (Committee member)***. By Ph.D. Rola N. Rawashdeh. July 2021. Faculty of Graduate Studies, University of Jordan, Amman, Jordan.
5. ***An Investigation for Aerosols Concentrations inside Selected Jordanian Indoor Environments (Committee member)***. By M.Sc. Ali Ameer Hisham Alwahsh. April 2021. Faculty of Graduate Studies, University of Jordan, Amman, Jordan.
6. ***Assessment of Nitrate Leaching to Zarga River by Soil Water Assessment Tool (SWAT) Model (Committee member)***. By Ph.D. Rafa'a Khaled M. Abu Qaoud, December, 2020. Doctor of Philosophy Degree in Agriculture, Faculty of Graduate Studies, The University of Jordan, Amman, Jordan.
7. ***Spatial evaluation of soil texture using remote sensing techniques in Al Mafraq area- Jordan (Committee member)***. By M.Sc. Anas Ahmad Al-Yamani, August 2020. Master Program in Applied Geology, Deanship of Graduate Studies, Alalbayt University, Mafraq, Jordan.
8. ***Sequential fractionation of inorganic phosphorus of calcareous soils in Jordan. (Committee member)***. By M.Sc. Faris Fayyad Kamel AlShayeb, July 2020. Master in Climate Change and Dry Land Sustainability, Faculty of Graduate Studies, Hashemite University, Zarqa, Jordan.
9. ***An Environmental Study for the Effect of Sodium Adsorption Ratio with Flocculation-Dispersion on the Infiltration Capacity in North West Irbid of Jordan (Committee member)***. By M.Sc. Faten Khalife Abdel Qader, December 2019. Master Program of Water Resources and Environment, Deanship of Graduate Studies, Alalbayt University, Mafraq, Jordan.
10. ***GIS and DRASTIC Model for Mapping and Assessment Groundwater Vulnerability to Contamination in Wadi Shuaib Basin, Jordan (Committee member)***. By Ph.D. Hassan Thabet Mohammed Khrisat, December 2019. Faculty of Graduate Studies, University of Jordan, Amman, Jordan
11. ***Simulation of Radioactive Pollution Emission Transport and Human Impacts during Hypothetical Accident Scenarios in a Nuclear Power Plant according to Jordanian Environmental Conditions (Committee member)***. By Ph.D. Marwan Mohammad Al-Kloub, December 2019. Faculty of Graduate Studies, University of Jordan, Amman, Jordan.
12. ***Climate Change Vulnerability Index for Agriculture Sector in Yarmouk River Basin Area (committee member)***. By M.Sc. Ayat Said AL Qudah. November, 2019. Department of Natural Resources and Environment, Faculty of Agriculture, Jordan University of Science and Technology, Irbid, Jordan.
13. ***Improvement of Engineering Properties of Lightweight Concrete Using Geopolymers (Committee member)***. By M.Sc. Farah Mahmoud Mousa Washah, November 2019. Department of Water Management and Environment, Faculty of Natural Resources and Environment, Hashemite University, Zarqa, Jordan.
14. ***Effect of Using Raw Olive Wastewater (OMW) and Olive Solid Waste (OSW) on Selected Soil Properties (Co-advisor)***. By M.Sc. Entethar Ali Salem Al-Shakhtrah, November 2019. Department of Land Management and Environment, Faculty of Natural Resources and Environment, Hashemite University, Zarqa, Jordan.
15. ***Influence of Different Irrigation Water Types and Levels on Panicum Maximum (guinea grass) Germination and Yield as a Climate Change Mitigation Measure (committee member)***. By M.Sc. Khadija Sameh Shaker Khamish, November 2019. Department of Land Management and Environment, Faculty of Natural Resources and Environment, Hashemite University, Zarqa, Jordan.

16. ***Deforestation Effects on Physical and Chemical Properties in Ajloun, Northwestern Jordan (committee member)***. By M.Sc. Lima Mryan. August, 2019. Department of Natural Resources and Environment, Faculty of Agriculture, Jordan University of Science and Technology, Irbid, Jordan.
17. ***Study of the efficiency of the use of irrigation water in the district of Sarhan Governorate Mafraq (Co-advisor)***. By M.Sc. Nasser Mostafa Mohammed Hassan, July 2019. Master Program of Water Resources and Environment, Deanship of Graduate Studies, Alalbayt University, Mafraq, Jordan.
18. ***Investigating the potential use of the Dimensionless Temperature as a new drought index (Committee member)***. By Ph.D. Sfa'a Ayyash, July 2019. Faculty of Graduate Studies, University of Jordan, Amman, Jordan.
19. ***Particulate matter concentrations in Amman and Zarqa based on mobile setup (Committee member)***. By Ph.D. Shatha Suleiman Ahmad Ali Saleh, July 2019. Department of Physics, Faculty of Sciences, University of Jordan, Amman, Jordan.
20. ***Investigating Amman's residential landscape plant diversity: implications for conservation of valuable plant species (Committee member)***. M.Sc. Amani Muhammed Al-Kafawin, July 2019. Department of Land Management and Environment, Faculty of Natural Resources and Environment, Hashemite University, Zarqa, Jordan.
21. ***Development of a Geospatial- Based Combined Index for Drought Over Jordan (Committee member)***. By Ph.D. Maram Jameel Al Naimat, April 2019. Faculty of Graduate Studies, University of Jordan, Amman, Jordan.
22. ***Investigating Spatial and Temporal Variability of Selected Climatic Variables in Jordan Using Advanced Mathematical Modeling Techniques (Advisor)***. By M.Sc. Lana Bassam Al-Fraihat, February 2019. Department of Land Management and Environment, Faculty of Natural Resources and Environment, Hashemite University, Zarqa, Jordan. 2.
23. ***Reclamation of Saline-Sodic Soils by Gypsum and Compost (Committee member)***. By M.Sc. Areen Salah Sharaf, February 2019. Department of Land Management and Environment, Faculty of Natural Resources and Environment, Hashemite University, Zarqa, Jordan.
24. ***Fine Aerosol Concentrations Daily Pattern Differences Between Spring and Autumn in the Urban Background Atmosphere of Amman (Committee member)***. By M.Sc. Zain M.H. Shelbayeh, December, 2018. Department of Physics, Faculty of Sciences, University of Jordan, Amman, Jordan.
25. ***Effectiveness of Continuous Contour Ridges and Intermittent Trenches Constructed Using the Vallerani in Water Harvesting in Arid Lands (Committee member)***. By Ph.D. Kifah, December, 2018. Faculty of Graduate Studies, University of Jordan, Amman, Jordan.
26. ***Changes in Land Productivity as A Parameter for Achieving Land Degradation Neutrality in Jordan (committee member)***. By M.Sc. Shadi Awni Abdelrahman Al-Shawabkah, July, 2018. Department of Natural Resources and Environment, Faculty of Agriculture, Jordan University of Science and Technology, Irbid, Jordan.
27. ***Assessment of Remote Sensing Indices for Drought Monitoring in North of Jordan (committee member)***. By Ph.D. Ibrahim A. Farhan, May 2018. Department of Land, Water and Environment, Faculty of Agriculture, University of Jordan, Amman, Jordan.
28. ***Potential Impacts of Climate Change on Surface Water Resources of Amman-Zarqa Basin using Downscaled Regional Circulation Model and Soil Water Assessment Tool (Co-advisor)***. By M.Sc. Ibrahim Khalil Al-Hassani, April 2018. Department of Land Management and Environment, Faculty of Natural Resources and Environment, Hashemite University, Zarqa, Jordan.
29. ***Phytoremediation of Contaminated Soil with Polycyclic Aromatic Hydrocarbons Using Helianthus annuus (Committee member)***. By M.Sc. Ismail Ahmad Alhuniti, January 2018. Master Program of Climate Change and Dry Lands Sustainability, Department of Land Management and Environment, Faculty of Natural Resources and Environment, Hashemite University, Zarqa, Jordan.
30. ***Simulation and adaptation measures of the impact of climate change on barley productivity in Jordan (committee member)***. By Ph.D. Hiba Mashhour AL-Kharabsheh, August 2017. Faculty of Graduate Studies, University of Jordan, Amman, Jordan.
31. ***Investigation for Spatial Distribution of Some Soil Chemical Elements at al Hashimeyeh Municipality (Co-advisor)***. By M.Sc. Imran Mahmoud Al - Harrahsheh, July 2017. Master Program of Climate Change

and Dry Lands Sustainability, Department of Land Management and Environment, Faculty of Natural Resources and Environment, Hashemite University, Zarqa, Jordan.

32. ***Climate Change Vulnerability Analysis of "Al Salt Village" based on Community Assessment (Co-Advisor)***. By M.Sc. Hala Mohammed Jamil Abdallat, April 2017. Master Program of Climate Change and Dry Lands Sustainability, Department of Land Management and Environment, Faculty of Natural Resources and Environment, Hashemite University, Zarqa, Jordan.
33. ***Vegetation Responses in Open Access Areas and Exclosure Areas at Yarmouk Protected Area in Northern Jordan*** (committee member). By M.Sc. Aladdin Omar Abdallah Al-Hiyasat, April 2017. Master Program of Climate Change and Dry Lands Sustainability, Department of Land Management and Environment, Faculty of Natural Resources and Environment, Hashemite University, Zarqa, Jordan.
34. ***Investigation the Surface Water Contamination and Fate in the Eastern Region of Lower Jordan River (Advisor)***. By M.Sc. Zainab S. Abu Zaid, 2016. Master Program of Climate Change and Dry Lands Sustainability, Department of Land Management and Environment, Faculty of Natural Resources and Environment, Hashemite University, Zarqa, Jordan.
35. ***Future prediction of Climate Variables Using Advanced Statistical Methods (Advisor)***. By M.Sc. Mostafa Shokri Al-Sawalhah, 2016. Department of Earth & Environment Sciences, Faculty of Natural Resources and Environment, Hashemite University, Zarqa, Jordan.
36. ***Investigating the Spatio-Temporal Changes of NDVI with relationship of some climatic variables using Remote Sensing and Geographical Information System techniques at Yarmouk Basin (Co-Advisor)***. By M.Sc. Heba Mohammed Amin Abu Alassal, 2016. Department of Earth & Environment Sciences, Faculty of Natural Resources and Environment, Hashemite University, Zarqa, Jordan.
37. ***Evaluation and Conform the Treated Greywater from Different Systems to Jordan Reclaimed Greywater Standards JS1776:2013*** (committee member), by M.Sc. Ola T. Al-Qawasmi. December 2015. Environmental Science and Management Master Program, Department of Water Management and Environment, Faculty of Natural Resources and Environment, Hashemite University, Zarqa, Jordan.
38. ***Developing a Forecast Model to Estimate Instantaneous Troposphere Ozone Based on Air Temperature*** (committee member), by M.Sc. Khitam Mansour Edibat. December 2015. Environmental Science and Management Master Program, Department of Water Management and Environment, Faculty of Natural Resources and Environment, Hashemite University, Zarqa, Jordan.
39. ***Impacts of Climate Change on Water Resources in Mujib Basin Using Statistical Downscaling Techniques Based on Various General Circulation Models (GCMS) Experiments*** (committee member), by M.Sc. Moh'd Kotaiba Mohammad Abugazleh. August 2015. Faculty of Graduate Studies, University of Jordan, Amman, Jordan.
40. ***An Integrative Approach for Modeling Surficial Uranium Deposits at Central of Jordan, Siwaqa Area*** (committee member), by M.Sc. Samer Hmoud. May 2015. Department of Earth & Environment Sciences, Faculty of Natural Resources and Environment, Hashemite University, Zarqa, Jordan.
41. ***Impacts of Treated Wastewater on Some Soil Properties and Production of *Gladiolus communis**** (committee member), by M.Sc. Heba Ibrahim Hasan. December 2012. Department of Land, Water and Environment, Faculty of Agriculture, University of Jordan, Amman, Jordan.
42. ***Assessment of Climate Change Impacts on Water Resources in Mujib Basin (Central Jordan)*** (committee member), by M.Sc. Mohammed Jaber. July 2012. Department of Water Management & Environment, Faculty of Natural Resources and Environment, Hashemite University, Zarqa, Jordan.
43. ***Developing a National Environmental Management Plan for Controlling Leishmaniasis in Syria using GIS and Remote Sensing*** (committee member), by M.Sc. Nafan. May 2012. Department of Water Management & Environment, Faculty of Natural Resources and Environment, Hashemite University, Zarqa, Jordan.
44. ***Measurement of Natural Radioactivity concentration levels in soil samples in Al Hashemyah-Asokhna Region*** (committee member), by M.Sc. Laith H. Al-Qudah. May 2012. Department of Earth & Environment Sciences, Faculty of Natural Resources and Environment, Hashemite University, Zarqa, Jordan.
45. ***Evaluating Land Cover Changes In Zarqa River Basin Using GIS And Remote Sensing Techniques*** (Advisor), by M.Sc. Ansam Khaled Al-Khawaldeh. July 2011. Department of Earth & Environment Sciences, Faculty of Natural Resources and Environment, Hashemite University, Zarqa, Jordan.

46. ***Spatial Variability Investigations of Selected Soil Physical Properties at the Central Jordan Valley*** (Co-Advisor), by M.Sc. Yousef Osama Al-Saleh. March 2011. Department of Land, Water and Environment, Faculty of Agriculture University of Jordan, Amman, Jordan.
47. ***Delineation of Groundwater Protection Zones and Vulnerability Mapping in WadiEs-Sir Area using GIS and Isotope Techniques*** (committee member), by M.Sc. Farah Abbas Mushrif Al Efan. May 2010. Department of Geology, Faculty of Sciences, University of Jordan, Amman, Jordan.
48. ***Drought Assessment at Wadi Mujib Basin Using Advanced GIS & Remote Sensing Techniques*** (Co-Advisor), by M.Sc. Amena Hesham Abazeed. May 2010, Department of Earth & Environment Sciences, Faculty of Natural Resources and Environment, Hashemite University, Zarqa, Jordan.
49. ***Optimization Water Use Efficiency of Green House Cucumber Growing Under Deficit Irrigation in Jordan Valley*** (Co-Advisor), by M.Sc. Tareq M. Najdat Kandaji. April 2010. Department of Land, Water and Environment, Faculty of Agriculture, University of Jordan, Amman, Jordan.
50. ***Assessing and Modelling Tomato Yield and Water Saving Under Water Deficit in Jordan Valley*** (committee member), by M.Sc. Rami Al-Qerem. December 2009. Department of Land, Water and Environment, Faculty of Agriculture, University of Jordan, Amman, Jordan.
51. ***Geo-Environmental Quality Assessment of Wadi El-Mujib Groundwater Resources Using Advanced Statistical and Geographical Information System*** (Co-Advisor), by Ph.D. Abeer Sh. Salman. May 2009. Department of Geology, Faculty of Sciences, University of Jordan, Amman, Jordan.
52. ***An Integrated Approach to Groundwater Exploration in Khan EzZabib Area Using Remote Sensing and Geographic Information System*** (committee member), by M.Sc. Mohammed Issam Barakat, May 2008. Department of Earth & Environment Sciences, Faculty of Natural Resources and Environment, Hashemite University, Zarqa, Jordan.
53. ***Estimating Grass Reference Evapotranspiration Using a Soil Water Dynamic Model and Soil Moisture Measurements*** (committee member), by M.Sc. Ala'a Hamad Homaidan. May 2008. Department of Land, Water and Environment, Faculty of Agriculture, University of Jordan, Amman, Jordan.
54. ***Effect of Sludge Type and Application Rate on the Physical Properties of Dry Soils***, (committee member), by M.Sc. Nesreen Ameen Abu-Aisheh, May 2008. Department of Land, Water and Environment, Faculty of Agriculture, University of Jordan, Amman, Jordan.
55. ***Removal of Heavy Metals from Industrial Wastewater*** (committee member), by Using Zeolite, by M.Sc. Nivin Al-Dahodia, April, 2007. Department of Land, Water and Environment, Faculty of Agriculture, University of Jordan, Amman, Jordan.
56. ***Studying of Soil Spatial Variability from Soil Data and Remotely Sensed Data*** (Co-Advisor), by M.Sc. Zeinah Waleed Al-Haj Baddar, January 2007. Department of Land, Water and Environment, Faculty of Agriculture, University of Jordan, Amman, Jordan.
57. ***Reserve Calculations of Clays and Diatomite in Azraq Area*** (committee member), by M.Sc. Abeer Sh. Salman. May, 2005, Department of Earth & Environment Sciences, Faculty of Natural Resources and Environment, Hashemite University, Jordan.

Awards & Acknowledgements

1. ***Certification of Participation in the "Applications of Lab Biosafety and Biosecurity Workshop"*** (5th December 2018). The Hashemite University, Zarqa, Jordan.
2. ***Certification of Participation in the Eighth Scientific Agricultural Conference*** (15-17 October 2018). Mu'ta University, Karak, Jordan.
3. ***Certification of acknowledgement for Cooperation on Succeeding the Fifth Scientific Agricultural Conference*** (9-12 May 2005). Balqa University, Salt, Jordan.
4. ***Certification of Appreciation for Cooperation on Succeeding the Event Climate March from Balqa to Aqaba holding a great message "Stop Changing the Climate"*** (2nd November, 2017). Green Generation Foundation (GGF), Amman, Jordan.
5. ***Irrigation Systems Design and Installation Expert***. (10th October, 2017). Agriculture Engineers Association, Amman, Jordan.
6. ***Expert Science Fair Evaluator***. Mayar International Schools. Science Fair 2014.

7. **Role Model.** The First National Conference on Science Education Project based on the survey "Interactive Series", coordinated by Jordanian Society for Scientific Research, funded by the European Commission, FP7 2014.
8. **Brilliant Professor.** Faculty of Natural Resource & Environment, Graduate Students Award, Hashemite University, Zarqa, Jordan, 2013.
9. **Acknowledged Vice Dean,** Faculty of Natural Resource & Environment, Hashemite University, Zarqa, Jordan, 2011.
10. **Acknowledged Dean Assistant,** Faculty of Natural Resource & Environment, Hashemite University, Zarqa, Jordan, 2010.

SKILLS

- a. Long and advance experience in designing, implementing, monitoring, reporting, assessment, and evaluating national and international projects using proper advanced methodologies to provide guidelines, logistic, technical, and scientific findings, gap analyses, and lesson learned stories.
- b. Long and advance experience in community engagement and services as lecturer, trainer, and facilitator with high communication skills.
- c. Long and advance experience in organizing workshops and conferences with international scientific standards to capture audience attention and enthusiasm.
- d. Advance experience in building Geospatial Data Model (Conceptual, Logical, and Physical), Data Dictionary, and Data Register using Enterprise Architecture.
- e. Advance experience in designing and conducting PBL, and other active learning techniques.
- f. Long and advance experience in working with mathematical and statistical modelling for environmental managements such as JMP, SAS, and SPSS.
- g. Advance experience in assessing climate change impacts on various sectors using LEAP, SWAT, and DSSAT.
- h. Long and advance experience in soil spatial modelling such as: GS+, ArcMap, QGIS, and GSLib.
- i. Long and advance experience in solute transport modelling such as: Chemflux, ChemFlow, Modflow, and Hydrus.
- j. Long and advance experience in irrigation designing, evaluation and management using software's such as: CropWat, AquaCrop, WaterMark, IrriPro, and IrriCad.
- k. Long and advance experience in field and laboratory experimental design and analyses.
- l. Solid experience in on-line, e-learning, and web learning tools and software (e.g. Moodle, Microsoft team, Zoom, Cisco Webex, google slides, google forms, Kahoot, slideshare, etc.).

LANGUAGES

- Arabic** : Mother Language
English : Excellent, read, write and speak.
Russian : Good, read, write and speak.

PROFESSIONAL SOCIETY MEMBERSHIP

- *Soil Science Society of America.*
- *Sigma Xi (The Scientific Research Society).*
- *Gamma Sigma Delta (The Honour Society of Agriculture).*
- *Soil and Water Conservation Society.*
- *Jordanian Association of Agricultural Engineers.*
- *Jordanian Society for Scientific Research.*
- *Jordanian Environmental Society.*
- *The Jordanian Society for Desertification Control & Badia Development.*
- *Association of Agricultural Research Institutions in the Near East & North Africa / Water Use Efficiency Network*
- *Member of community 'Water Accounting & Water for Food' and "FAO" (Dgroups)*

CONTACT INFORMATION

Hashemite University
Faculty of Natural Resources and Environment
Department of Land Management & Environment
P.O. Box 926804, Zip Code 11190, Amman, Jordan
Phone (Home) : +962 6 4776051
(Mobile) : +962 79 6700222
(Work) : +962 5 3903333 ext. 5122
E-mail: qinna@hu.edu.jo

References

1. **Prof. Saeb Khresat**, President of the Jordan University of Science and Technology, Irbid, Jordan, Mobile +962796600222, email: skhresat@just.edu.jo
2. **Prof. Fayez Ahmad**, Dean of the Prince El-Hassan bin Talal Faculty for Natural Resources & Environment / Hashemite University, Zarqa, Jordan, Mobile +962795964502, email: fayeza@hu.edu.jo
3. **Mr. Bater Wardam**, GIZ Jordan Environment & Climate Programme Project Manager (AV), c/o Ministry of Environment, Amman- Jordan, Mobile +962799866644, email: batir.wardam@giz.de