

Curriculum Vitae

Usama AlDughaishi – Water Reuse Management

Assistant Professor of Water Reuse Management
Department of Soils, Water and Agricultural Engineering
College of Agricultural and Marine Sciences
Sultan Qaboos University, PO Box 34, Al-Khod 123,
Oman **Tel:** 2414 6561; Email: usama@squ.edu.om



1. PERSONAL DETAILS

Full name	Usama Ahmed Saud AlDughaishi
Present position	Assistant Professor; Sultan Qaboos University (SQU)
Address	College of Agricultural and Marine Sciences, Sultan Qaboos University, Al-Khoud 123, PO Box 34, Sultanate of Oman
Date of birth	1989
Nationality	Omani
Marital status	Married
Date of appointment	2012
Degrees awarded (years)	Ph.D. in Hydrologic Sciences, University of California Davis, USA (2018-2023)
	M.Sc. in Agriculture and Biological Engineering, University of Florida, USA (2014-2016)
	B.Sc. in Agricultural Engineering, Sultan Qaboos University, Oman (2007-2012)
Work experience (Position and Dates)	<ul style="list-style-type: none">• Assistant Professor, Sultan Qaboos University, 2023-present• Lecturer, Sultan Qaboos University, 2016-2023• Demonstrator, Sultan Qaboos University, 2012-2016
Research Interests and Professional Expertise	<ul style="list-style-type: none">• Low-quality-water (treated wastewater, brackish water, oil production water, untreated waters) reuse management in agriculture• Agricultural water management (water-soil-plant Nexus)• Hydrology• Programing and modeling skills: Python, R-programing
Websites ORCID Google Scholar ResearchGate Detailed CV	https://orcid.org/0009-0001-9029-350X https://scholar.google.com/citations?user=7KH-Y7AAAAAJ&hl=en&authuser=1 https://www.researchgate.net/profile/Usama-Aldughaishi SQU: https://www.squ.edu.om/agriculture/Academic-Department/Soils-Water-and-AgriculturalEngineering/Faculty

2. Awards, Honors, Recognition and Achievements

- 2023: 2022-2023 Henry A. Jastro Graduate Research Award, University of California Davis, USA
- 2018: PhD scholarship, The National Postgraduate Scholarship Programme Academic year, Oman
- 2015: Certificate of outstanding academic achievement for achieving and maintain a 4.0 GPA, University of Florida, USA
- 2016: MSc scholarship, awarded from Sultan Qaboos University, Oman
- 2012: Training at Asian Institute of Technology, Thailand, undergraduate training, awarded from Sultan Qaboos University, Oman
- 2012: Certificate of academic excellence, best student award for college of Agricultural and Marine Sciences for the academic year 2011/2012, 12th University Day, Sultan Qaboos University, Oman
- 2012: Honors Second Class, Sultan Qaboos University, Oman
- 2010: Sultan Qaboos Prize for excellent students for the academic year 2009/2010, 13th student trip to Finland, Sweden and Norway, Sultan Qaboos University
- 2010: Honors, Sultan Qaboos University, Oman
- 2009: Honors, Sultan Qaboos University, Oman

3. Teaching

Teaching courses

Undergraduate courses	Postgraduate courses
Water control and supply, SWAE4305, Spring 2024 Water quality, SWAE3315, Spring 2024, Spring 2018 Irrigation system, SWAE4402, Spring 2018 Seminar and presentation skills, CAMS3000, Fall 2017	

4. Scholarly Activities

Refereed Journal Publications

- **Aldughaisi, U.**, Grattan, S.R. and Kisekka, I., Assessing the Impact of Recycled Water Reuse on Soil Hydrology Under a Greenhouse Environment. *Available at SSRN 4688968*. <http://dx.doi.org/10.2139/ssrn.4688968>
- **Aldughaisi, U.**, Grattan, S.R., Nicolas, F., Peddinti, S.R., Bonfil, C., Ogunmokun, F., Abou Najm, M., Nocco, M. and Kisekka, I., Assessing the Impact of Recycled Water Reuse on Infiltration and Soil Structure. *Available at SSRN 4689311*. <http://dx.doi.org/10.2139/ssrn.4689311>
- Kisekka, I., **Aldughaisi, U.** and Grattan, S.R., Assessing the Impact of Irrigation Water with Various Cation Ratios on Strawberry Growth and Development in a Greenhouse Environment. *Available at SSRN 4717857*. <http://dx.doi.org/10.2139/ssrn.4717857>

Reports/Technical Reports

- Kisekka, I., **Aldughaisi, U.**, Platts, B., Cahn, M., Pedrero, F., Grattan, S. (2024). Developing a New Foundational Understanding of SAR-Soil Structure Interactions for Improved Management of Agricultural Recycled Water Use. Water Research Foundation. WRF ISBN: 978-1-60573-667-9. WRF Project Number: 4963. <https://www.waterrf.org/research/projects/developing-new-foundational-understanding-sar-soil-structure-interactions>
- Hayder A., Al-Maktoumi A. Al-Ismaily, S. **Al-Dughaisi U.**, Al-Busaidi H., 2014. Soil analysis for Al-Kamil date palm farm. Submitted to Institute for the Development of Water Resources "Jaroslav Černi", Belgrade, Serbia. Project No CR/AGR/SWAE/14/01

Conference Abstracts: Presentation/Poster	
<ul style="list-style-type: none"> • Usama Aldughhaishi, Steve Grattan, Tibin Zhang, Isaya Kisekka. (2023). Evaluation of the effect of recycled water cation composition on strawberry growth and development. ASABE Annual International Meeting. July 09-12 Omaha, NE, USA. • Usama Al Dughhaishi, Isaya Kisekka, Steve Grattan. (2022). Cation Ratio of Soil Structural Stability Predicts the Potential of Soil Infiltration Problems Better than Sodium Adsorption Ratio. ASABE Annual International Meeting. July 17-20 Houston, TX, USA. • Steve Grattan, Isaya Kisekka and Usama Al-Dughhaishi. (2021). Sodicity and the Soil-Plant System: Current Assessment. IUSS Conference on Sodic Soil Reclamation. Sept. 17-19 in Changchun, China. • Al-Dughhaishi, U., Kiker, G.A., Ghoweisi, H., 2016. Analysis of parcel-level pollution control alternatives using agent-based model of furrow irrigation. 2016 ASABE Annual International Meeting. Paper No 162460729. • Al-Dughhaishi, U., Kiker, G.A., Ghoweisi, H., 2017. Minimizing Erosion And Agro-Pollutants Transport From Furrow Irrigated Fields To The Nearby Water Body Using Spatially-Explicit, Agent Based Model And Decision Optimization Platform. 2017 ICEI International Conference on Environmental Indicators. No 289115. 	

Books		Dissertations				
		<ul style="list-style-type: none"> • Aldughhaishi, U. (2023). Evaluating the Impacts of Recycled Water Reuse on Soil Hydrology and Plant Growth. <i>UC Davis</i>. ProQuest ID: Aldughhaishi_ucdavis_0029D_22535. Merritt ID: ark:/13030/m5jj4nf2. Retrieved from https://escholarship.org/uc/item/9tw532qc • Al-Dughhaishi, U., 2016. Linking a Spatially-Explicit, Agent-Based Model With Multi-Criteria Decision Analysis to Explore Management Alternatives For Improving Water Quality. M.S. Thesis, University of Florida, USA. URL: http://ufdc.ufl.edu/UFE0050170/00001 				
Research projects						
#	Role	Year/ Completion	Project title	Fund by	Fund value	
					OMR	USD
1	PI	In progress (2024-present)	A sustainable approach to minimize the risk of wastewater use to irrigate edible crops	Dean seed funds -CAMS, SQU, Oman	1,000	2,500
2	Co-I	Completed (2020-2023)	Developing a New Foundational Understanding of SAR-Soil Structure Interactions for Improved Management of Agricultural Recycled Water Use	The Water Research Foundation, USA	19,000	500,000
3	Co-I	Completed (2014)	Soil survey and analysis for Al-Kamil date palm farm as part of the million date palm project	Consultancy: Jaroslav Cerni Institute (JCI), Serbia	11,000	28,600

Professional membership
2022-2023: American society of agricultural and biological engineers, member

Committee members at SQU
2024-present: Department board (DB), undergraduate studies & curriculum committee (USCC) 2016-2018: DB, USCC 2012-2014: DB

Collaborations and Consultancies		
Collaborators	Institute/University/Organization	Country
Hossein Babazadeh	Islamic Azad University	Iran
Tibin Zhang	Northwest A&F University	China
Isaya Kisekka	University of California Davis	USA