Curriculum Vitae

Dr. Ali Al-Maktoumi – Water Resources Management Associate Professor of Water Resources Management in Arid Zones Department of Soils, Water and agricultural Engineering College of Agricultural and Marine Sciences Sultan Qaboos University, PO Box 34, Al-Khod 123, Oman <u>Tel</u>: 2414 1212/2414 3129; <u>GSM</u>: +968 99345813; Email: <u>ali4530@squ.edu.om</u>



1. PERSONAL DETAILS		
Full name	Dr. Ali Al-Maktoumi	
Present position	Associate Professor of Water Resources Management & Director of Water Research Center;	
	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	13/07/1977	
Nationality	Omani	
Marital status	Married	
Date of appointment	19 August 1998	
Degrees awarded	PhD in Environmental Engineering (Water Resources), (2003-2007)	
(years)	School of Civil Engineering, The University of Queensland, Brisbane, Australia	
	MSc. in Soil and Water Management, (1999-2001), College of Agriculture, Sultan Qaboos	
	University, Oman.	
	BSc. in Soil and Water Sciences, Sultan Qaboos University, Oman (1994-1998)	
Work experience	Director of Water Research Center: Sultan Qaboos University, Sep 2019- present,	
(Position and Dates)	Assistant Dean for Postgraduate studies and Research, CAMS- SQU, Sep 2016- Aug 2019	
	Associate Professor, Sultan Qaboos University, June 2016- present	
	Assistant Professor, Sultan Qaboos University, June 2007- May 2016	
	Lecturer, Sultan Qaboos University, Jan 2001- May 2007	
	Demonstrator, Sultan Qaboos University, 1998- Dec 2000	
Research Interests	 Numerical modeling of flow and contaminant transport in porous media 	
and Professional	 Density-dependent flow and transport in groundwater 	
Expertise	Artificial recharge of groundwater	
	Subsurface Hydrology	
	Arid Zone Hydrology	
	Hydro-ecology and Hydropedology	
· · · ·	Wianaged aquifer Recharge and Recovery	
ORCID	https://orcid.org/0000-0001-8766-5993	
G.Scholar	https://scholar.google.com.au/citations?hl=en&user=wNd7Dg4AAAAJ&view_op=list_works&sortby=pubdate	
Research Gate	https://www.researchgate.net/profile/Ali Al-Maktoumi	
Scopus	https://www.scopus.com/authid/detail.uri?authorId=35799693300	
SQU	https://www.squ.edu.om/agr/Departments/Soils-Water-and-Agricultural- Engineering/Faculties/Dr-Ali-Al-Maktoumi	

2. Awards, Honors, Recognition and Achievements				
Year	Award, achievement, recognition	Source		
2021	1. Best Research Group Award at Sultan Qaboos University for year 2021. (Leader of the Group)	 Sultan Qaboos University 		
2020	2. National Research Award for Best publication in Water Strategic Research (co-author)	 Ministry of Higher Education, Research & Innovation, Oman 		
2020	 National Research Award for Best publication in Water Strategic Research , Category 2 – Non phD holder - my PhD student published paper 	 Ministry of Higher Education, Research & Innovation, Oman 		
2019	 4. National Research Award for Best publication in Environmental Research Theme, Category 2 – Non phD holder - my MSc student published paper 	 Ministry of Higher Education, Research & Innovation, Oman 		
2019	5. National Research Award for Best publication in Education Theme (co-author)	 Ministry of Higher Education, Research & Innovation, Oman 		
2017	6. National Research Award for Best publication in Water Strategic Research (co-author)	 Ministry of Higher Education, Bessearch & Innevation, Oman 		
2016	7. "Best Academic Award", Sultan Qaboos University, Oman	 Sultan Qaboos University 		

3. Teaching				
Teaching courses				
Undergraduate courses	Postgraduate courses			
Introduction to Soil & Water (SWAE 2201)	1. Advanced Topics in Soils, Water and			
Elements of Hydrology (SWAE 3303)	Agricultural Engineering - SWAE 6009			
Groundwater Hydrology (SWAE 4400)	2. Soil and Groundwater Contamination			
Water Resources Management and Legislations (SWAE 4415)	and Clean-Up - SWAE 6312			
Arid Zone Hydrology (SWAE 4006)	3. Multiphase flow - SWAE 6311			
Seminar and Presentation Skills (CAMS 3000)				

4. Scholarly Activities

Selected Refereed Journal Publications

Al-Maktoumi A., Lockington D.A, Volker R.E. (**2007**) SEAWAT 2000: Modelling Unstable Flow and Sensitivity to Discritization and Numerical Scheme. Hydrogeology Journal, 15(6): 1119-1129.

Ali Al-Maktoumi, Said Al-Ismaily, Anvar Kacimov, Hamed Al-Busaidi, Said Al-Saqri, and Mansour Al-Hadabi. (**2014**) Soil substrate as a cascade of capillary barriers for conserving water in a desert environment: lessons learned from arid nature. Journal of Arid Land, 6 (6): 690-703

Said Al-Saqri, **Ali Al-Maktoumi**, Said Al-Ismaily, Anvar Kacimov, Hamad Al-Busaidi (**2015**) Hydropedology and soil evolution in explaining the hydrological properties of recharge dams in arid zone environments. Arabian Journal of Geosciences, 9(1), ISSN 1866-7511. DOI 10.1007/s12517-015-2076-0

Suzanne Faber, **Ali Al-Maktoumi**, Anvar Kacimov, Hamed Al-Busaidi, Said Al-Ismaily, Mohamed Al-Belushi. (**2015**). Migration and deposition of fine particles in a porous filter and alluvial deposit: laboratory experiments, Arabian Journal of Geosciences, Springer, 9 (4): DOI: 10.1007/s12517-016-2309-x

Ali Al-Maktoumi, Anvar Kacimov, Said Al-Ismaily, Hamed Al-Busaidi, Said Al-Saqri. (**2015**) Infiltration into twolayered soil: the Green-Ampt and Averyanov models revisited. Transport in Porous Media, 109:169–193. DOI:10.1007/s11242-015-0507-8

Ali Al-Maktoumi, Mustafa El-Rawy, Slim Zekri. (**2016**) Management options for a multipurpose coastal aquifer in Oman. Arabian Journal of Geosciences, Springer, 9(14):1-14. DOI: 10.1007/s12517-016-2661-x

CV: Dr. Ali Al-Maktoumi

Ali Al-Maktoumi, Said Al-Ismaily, Anvar Kacimov. (**2016**) Research based learning for undergraduate students in soil and water sciences: a case study of Hydropedology in an arid-zone environment. Journal of geography in Higher Education, 40 (3): pp 321-339. DOI:10.1080/03098265.2016.1140130

Ali Al-Maktoumi, Slim Zekri, Mustafa El-Rawy, Osman Abdalla, Malik Al-Wardy, Ghazi Al-Rawas, Yassine Charabi. (**2018**) Assessment of the impact of climate change on coastal aquifers in Oman. Arab J Geosci (2018) 11: 501. <u>https://doi.org/10.1007/s12517-018-3858-y</u>

Ali Al-Maktoumi, Slim Zekria, Mustafa El-Rawy, Osman Abdalla, Rashid Al-Abri, Chefi Triki, Mohammad Reza Bazargan-Lari (2020). Aquifer storage and recovery, and managed aquifer recharge of reclaimed water for management of coastal aquifers. Desalination and water treatment 176:67-77. DOI: 10.5004/dwt.2020.25499. Azizallah Izady, Mohammad Sadegh Khorshidi, Mohammad Reza Nikoo, Ali Al-Maktoumi, Mingjie Chen, Hilal Al-Mamari, Amir H Gandomi. 2021. Optimal Water Allocation from Subsurface Dams: A Risk-Based Optimization Approach. Water Resources Management 35, 4275–4290. <u>https://doi.org/10.1007/s11269-021-02946-9.</u>

A Izady, A Joodavi, M Ansarian, M Shafiei, M Majidi, K Davary, AN Ziaei, H Ansari, MR Nikoo, **A Al-Maktoumi**, M Chen, O Abdalla. 2021. A scenario-based coupled SWAT-MODFLOW decision support system for advanced water resource management. Journal of Hydroinformatics. <u>doi.org/10.2166/hydro.2021.081</u>

	Refereed Conference Papers/ Proceedings/ Books and Chapters in Books
1	A. Al-Maktoumi and A.R. Kacimov. (2002). Kinematics of two-dimensional solute transport by advective dispersion and gravitationally segregated flows. Proceedings of the first workshop on mathematical modelling of environmental problems. EDITURA ACADEMIEI Romania, Bucharest, June 17-21, pp.39-46. ISBN: 973-27-0934-0
3	Mohamed Saber, Sameh A. Kantoush, Tetsuya Sumi, Yusuke Ogiso, Tahani Alharrasi, Takahiro Koshiba, Mohammed Abdel-Fattah, Ali Al-Maktoumi , Osman A. Abdalla, Yasuhiro Takemon, Daisuke Nohara, Sohei Kobayashi, Mahmood Almamari, Khalid Al Hooti, Ahmed Al Barwani, Hilal Almamari, Dina Ellithey, Ekkehard Holzbecher, Ahmed Hadidi, (2022) Integrated Study of Flash Floods in Wadi Basins Considering Sedimentation and Climate Change: An International Collaboration Project. In: Sumi T., Kantoush S.A., Saber M. (eds) Wadi Flash Floods. Natural Disaster Science and Mitigation Engineering: DPRI reports. Springer, Singapore. <u>https://doi.org/10.1007/978-981-16-2904-4_15</u>
	Conference Abstracts /Poster/Chapters
1	Ali Al-Maktoumi , Slim Zekri, Mustafa El-Rawy, Osman Abdalla, Rashid Al-Abri,, Chefi Triki, Mohammad Reza Bazargan-Lari. Aquifer Storage and Recovery and Managed Aquifer Recharge of Reclaimed Water for Management of Coastal Aquifers. Presented at the 13th Gulf Water Conference: Water In the GCC: Challenges and Innovative solutions, 12-14 March 2019 . State of Kuwait.

- Ali Al-Maktoumi (2019) Testing A Capillary Barrier Technique For Managing Soil Composite And Irrigation Water In Home Gardens. Presented at ETHZ-SQU Mini-symposium organized at ETH-Zurich, Switzerland, June 2019.
- 3 Ali Al-Maktoumi*, Shahad Al-Yaqoubi, Anvar Kacimov, Marwah Al-Battashi, Ahmed Al-Mayahi, Said Al-Ismaily, Hamed Al-Busaidi, Yurii Obnosov, Osman Abdalla, Azizallah Izadi. 2021. Impact of Urban Hydrology on The Formation of Shallow Perched Aquifers: Sharing Experience From Oman. Invited talk presented at the 6th International Symposium on Flash floods in Wadi Systems. Amman, Jordan, **25-30 Sept 2021.**
- 4 Al-Maktoumi Ali. (15-23 August 2020) Climate change and management of limited water resources: Integration of a smart Agro-engineering Technique and sensor based irrigation for Saving Irrigation Water in Arid Farming. Arab Science Week, Online conference.
- 5 Ali Al-Maktoumi. Regional Workshop on "Artificial Recharge Experience in the GCC Countries" organized by KISR-Kuwait. (invited speaker) To What Extent Can Managed Aquifer Recharge Contributes To Augmentation Of Water Resources In Arid Areas : Sharing Experience From The Sultanate Of Oman .

6 Ali Al-Maktoumi*, Shahad Al-Yaqoubi, Anvar Kacimov, Marwah Al-Battashi, Ahmed Al-Mayahi, Said Al-Ismaily, Hamed Al-Busaidi, Yurii Obnosov, Osman Abdalla, Azizallah Izadi. 2021. Impact of Urban Hydrology on The Formation of Shallow Perched Aquifers: Sharing Experience From Oman. Invited talk presented at the 6th International Symposium on Flash floods in Wadi Systems. Amman, Jordan, 25-30 Sept 2021.

Edited Books - Springer Osman Abdalla, Anvar Kacimov, Mingjie Chen, Ali Al-Maktoumi, Talal Al-Hosni, Ian Clark. Water Resources in Arid Areas: The Way Forward. Springer. ISBN 978-3-319-51855-8. DOI 10.1007/978-3-319-51856-5 (Oct 2016) Ali Al-Maktoumi, Osman Abdalla, Anvar Kacimov, Mingjie Chen, Talal Al-Hosni, Kavh M. Water Resources in Arid Lands: Management and Sustainability. . Springer. ISBN 978-3-030-67027-6. (April 2021)

Awarded Grants – Selected – Total value of the awarded grants as per Nov 2021 is (US\$ 2,929,030).

- Research Project: Radar Probing of Groundwater In Hyper-Arid Environments: Understanding Aquifer Dynamic In High Discharge Areas, Funded by USAID-FABRI, USA r. Collaborating Agencies/Institutions: California Institute of Technology, USA, Jet Propulsion Laboratory, USA, Hassan II University, Rabat, Morocco. (Dr. Ali Al-Maktoumi as Co-investigator) EG/DVC/WRC/13/01 (US\$ 702,562)
- Research Project: Managed Aquifer Recharge using Treated Wastewater in Different Geological Settings of MENA countries. Funded by USAID-FABRI, USA. Collaborating Agencies/Institutions: University of Nebraska, USA, University of Jordan, Jordan, Ministry of Regional Municipalities and Water Resources, Oman. EG/DVC/WRC/14/02 (Total US\$ 247,000) - (Dr. Ali Al-Maktoumi as leading investigator).
- 3. Research Project: Water Level Rise in Muscat. Funded by the Ministry of Regional Municipality and Water Resources, Oman Government. CL/DVC/WRC/2016/01 (US\$ 104,000) Lead PI
- Consultancy Project: Assessment of climate change on water resources based of IPCC prediction scenarios for years 2050 and 2070. Funded by the Ministry of Environmental and Climate Affairs, Oman Government, (US\$ 85,000), code: CR/AR/GEOG/14/01 – Co-I
- 5. Research Project: Shallow water table problems at SQU campus and it's Mitigation. Funded by SQU Admin. IG/VC/WRC/2021/01 (US\$ 143,000). Lead PI
- 6. **Research Project**: Uncertainty analysis of numerical groundwater flow model using approximate Bayesian computation: case of Muscat governorate. Funded through the internal research budget at Sultan Qaboos University IG/DVC/WRC/2020/01 (US\$ 21,580)- Co-PI
- 7. Consultancy Project: Combining Dynamic Storage and Recovery Techniques with the Use of Smart Water Metering for the Multi-Period Aquifers Management in Qatar. Funded by Hamad Bin Khalifa University ("HBKU"), a center of Qatar Foundation for Education, Science, and Community Development ("QF") Qatar National Research Fund (NPRP13S-0129-200198 US\$ 500,000) Awarded April 2021 Lead PI from SQU side

International and National Collaborations

Period	The Institute
2014 - 2017	University of Nebraska-Lincoln, USA, (Prof. Vitaly Zlotnik) - USAID-FABRI project
2014 – 2016	Qatar Environment and Energy Research Institute (QEERI), Qatar Foundation, Qatar, Dr.
	Esam Heggy - Radar Probing for subsurface investigation – Al-khararah site
2014 - 2016	University of Jordan, Jordan, (Dr. Marwan Al-Raggad) - USAID-FABRI project,
	EG/DVC/WRC/14/02
2012 2016	California Institute of Technology and Jet Propulsion Laboratory – NASA- USA(Dr. Essam
2013 - 2016	Heggy) – USAID-FABRI project, EG/DVC/WRC/13/01
2013- 2015	UNESCO-IHE, The Netherlands, (Dr. Andreja Jonoski) – SR/AGR/SWAE/09/01
2010 - present	Technical University of Dresden, Germany
2010 - Present	The University of Amsterdam and Utrecht University, The Netherlands, (Prof. Schotting),
2009 - present	Haya Water Company, Oman