1. Faisal M. Alfaisal

Personal Data

Nationality:	Saudi
Contact Address:	King Saud University, Civil Engineering Department, P.O. Box 800, Riyadh 11421, Saudi Arabia Telephone (966-11) 4663269 E-mail: falfaisal@ksu.edu.sa
Website:	http://faculty.ksu.edu.sa/en/falfaisal

EDUCATION

Degree	Institution	Discipline	Year
B.Sc.	King Saud University	Civil Engineering	2012
M.Sc.	Arizona State University	Water Resource Engineering	2016
Ph.D.	Arizona State University	Water Resource Engineering	2019

ACADEMIC EXPERIENCE

- Associate Professor- Water Resources Engineering, April 2025- Present
- Assistant Professor- Water Resources Engineering, August 2019- April 2025
- Lecturer- Water Resources Engineering, December 2012- August 2019

PROFESSIONAL EXPERIENCE

1. World Bank Organization
2. Education and Training Evaluation Commission- QIYAS
3. Bin-Laden construction company

PROFESSIONAL CREDENTIALS, CERTIFICATIONS, OR LICENSING

- AGU American Geophysical Union- Meeting Fall 2020 (Dec, 2020) (**Poster**); **Titled**: Water Allocation Optimization Model for Agricultural Irrigation: A Case Study of Hali Dam, Saudi Arabia.

PROFESSIONAL MEMBERSHIPS

- AGU American Geophysical Union membership.
- Gulf Water Science and Technology Association (WSTA GGC) membership.

HONORS AND AWARDS

- Study abroad for Master and Phd.

CONTRIBUTIONS TO THE DISCIPLINE IN LAST 5 YEARS

SERVICE:

1. IWRM study of Bishah and Hali Watersheds.
2. Reviewing the questions on water resources that fit civil engineering practices (PE exam).
3. Reviewer for Water Resource Management journal (EWRA).
4. Reviewer for King Saud University- Engineering sciences journal (JKSUES).

PRESENTATIONS:

1. Speaker at The 14th Gulf Water Conference (Feb, 2022); Titled: Optimization Models for Hydrosystems: An introduction. Special session on water economics and finances in the GCC countries.
2. Speaker at Saudi Water Forum SWF 2022 (Mar, 2022); Titled: The Role of Education and Awareness for Water Sustainability.

PRINCIPAL PUBLICATIONS OF LAST FIVE YEARS

1. Elfeky, A.M., **Alfaisal, F.M**., El-Shafei, A. (2025). Analyzing Riyadh Treated Wastewater Parameters for Irrigation Suitability Through Multivariate Statistical Analysis and Water Quality Indices. Water 2025, 17, 709. https://doi.org/10.3390/w17050709
2. Ul Hasan, M. S., Rai, A. K., Momin, A. H., Khan, M. A., **Alfaisal, F. M.**, Alam, S., Al-Sareji, O.J. and Majdi, A. (2025). Multi-dimensional scaling for space-time transformation to achieve sustainable planning and management of water resource under changing land use pattern. Scientific Reports, 15(1), 1129. https://doi.org/10.1038/s41598-024-82207-y
3. **Alfaisal, F.M**. (2024). Development of a sustainable optimization model for planning regional wastewater systems with consideration of water quality. AIP Advances 14, 105306. https://doi.org/10.1063/5.0222256
4. M. El-Feky, A., Saber, M., Abd-el-Kader, M. M., Kantoush, S. A., Sumi, T., **Alfaisal, F.M.,** Abdelhaleem, A. (2024). Comprehensive environmental impact assessment and irrigation wastewater suitability of the Arab El-Madabegh wastewater treatment plant, ASSIUT CITY, EGYPT. Plos one, 19(2), https://doi.org/10.1371/journal.pone.0297556
5. **Alfaisal, F.M**., Alharbi, R. S, Shamshad Alam (2023). Application of an optimization model for water supply chain using storage reservoir operation for efficient irrigation system. Journal of discrete dynamics in nature and society. DOI : https://doi.org/10.1155/2023/7932653
6. **Alfaisal, F. M**., Model for optimal regional wastewater systems planning with uncertain wastewater treatment capacity, Chapter in Mohsen Sherif et al. (Eds): "Water Resources Management and Sustainability: Solutions for Arid Region" Published by Spring Nature (2023). https://doi.org/10.1007/978-3-031-24506-0_25
7. Abd-el-Kader, M.M., El-Feky, A.M., Saber, M. **Alfaisal, F. M**. (2023). Designating appropriate areas for flood mitigation and rainwater harvesting in arid region using a gis-based multi-criteria decision analysis. Water Resour Manage. https://doi.org/10.1007/s11269-022-03416-6

8. Khan, M. A., Sharma, N., Pu, J. H., **Alfaisal, F. M**., Alam, S., Garg, R., & Qamar, M. O. (2022). Mid-Channel Braid-Bar-Induced Turbulent Bursts: Analysis Using Octant Events Approach. Water, 14(3), 450. https://doi.org/10.3390/w14030450
9. Khan MA, Sharma N, Pu J, **Alfaisal F.M.**, Alam S, Khan WA. (2022). Analysis of Turbulent Flow Structure with Its Fluvial Processes around Mid-Channel Bar. Sustainability. 2022; 14(1):392. https://doi.org/10.3390/su14010392
10. **Alfaisal, F. M**., and Mays, L. W. (2022). Testing of an optimization model for optimal sewer system layout and wastewater treatment locations. Desalination and Water Treatment, 263, 152- 159. https://doi.org/10.5004/dwt.2022.28220
11. **Alfaisal, F.M**., Mays, L.W (2021). Optimization Models for Layout and Pipe Design for Storm Sewer Systems. Water Resour Manage 35, 4841–4854 . https://doi.org/10.1007/s11269-021- 02958-5

FUNDED RESEARCH PROJECTS

1. Researchers Supporting Project- RSP

RECENT PROFESSIONAL DEVELOPMENT ACTIVITIES

- Developing of optimization models for water resource problems that located in Saudi Arabia.
- Supervision of two PhD students.