### Fariborz Mohammadi,

Assistant Professor of Irrigation and Drainage Engineering

University of Hormozgan, Bandar Abbas, Iran.

Ph.D. Degree in Irrigation and Drainage Engineering; Shahid Chamran University of Ahvaz, Iran; 2013.

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☐ Academic Profile

### **Professional Experience and Qualification**

2013-2024

- Extensive and diverse Research and Teaching experience in Disposal of desalination wastewater, Water/Wastewater Network Design, Desalination Environmental Impact Assessment, Techno-Economic Analysis of Desalination Projects (SWRO&BWRO), Hydrodynamic Analysis of Effluent Discharge and Evolution and characterization of urban stormwater network.
- Supervisor of MSc. students on Desalination Brine Management, Urban Drainage Resilience, Hydraulic Structure Modeling, and Soil Salinity prediction using HYDRUS-1D/FLOW-3D simulations fields.
- Key Speaker at National Water & Environment Winter School *Ministry of Energy, Iran, Hormozgan Province, winter 2024.*

# **Qualification and Responsibility**

- Professional Roles & Leadership:
- Faculty Member, University of Hormozgan, 2014–Present
- ➤ Administrative Leadership:

University-Industry Collaboration

• Director of Industry Relations Office, University of Hormozgan, 2021–2024.

### Research Institute Management:

• Deputy Director, Hormoz Research Institute–University of Hormozgan 2017–2020.

### Academic Department Leadership:

 Course director of Water Engineering Department, Minab Higher Education Complex-University of Hormozgan, 2014–2017.

### University Governance:

Member of the Technical Council, University of Hormozgan, 2022-Present

- > Professional Certification:
- Court-Certified Expert in Natural Resources, Iranian Association of Official Judicial Experts, 2024 (Authorization Code: :19557)

### **Provincial Committees**

- ➤ Government Advisory
- Research Council Member | Hormozgan Regional Water Co., 2023–Present

• Civil Engineering Consultant, | Bandar Abbas Municipality | 2017–2019

**Executive Leadership** 

- Director of Studies & Shareholder, Aban Khalij Fars Consulting Engineers, 2023– Present
- Leader of Technical teams on "Asia Water Development Engineering Co.'s Desalination project (1MCM/day) in western Bandar Abbas, delivering end-to-end solutions from demand modeling and optimal delivery point selection using WEAP/GIS to investment analysis and tiered pricing frameworks, while ensuring environmental compliance.

# **Technical Expertise & Professional Practice**

### **Desalination & Brine Management**

> Technical-Economic Analyst

Evaluated 3 existing plants for Persian Gulf Mining & Metal Special Economic Zone (PGSEZ), 2021-2024.

- ➤ Environmental Impact Research Specialist5-year study on "Investigating the effects of brackish water desalination wastewater disposal on groundwater (Case study: Sarkhun Plain Hormozgan Province, Iran)", 2016-2021.
- > Academic Supervisor

Supervised 4 MSc theses on brine disposal optimization Consultant in Project Control & Contract Management

• Persian Gulf Mining & Metal Special Economic Zone (PGSEZ), 2023–Present.

### **Urban Stormwater Management**

- Lead Designer, Bandar Abbas Stormwater Network, Iran, 2017-2019
- Project Manager, Andimeshk Stormwater Network, Iran, 2012-2013
- Lead Designer, 11 industrial town Stormwater Network, Iran, 2010-2011.

## **Wastewater Reuse Expert**

- ➤ Wastewater Reuse Project for Agricultural Development
- Technical Consultant, treated wastewater scheme for olive farms, Qom province, Iran, 2006-2007.

#### **Publications**

**Articles** (5 Articles Relevant to the Course from 15 published Articles) 2006-2024

- 1- Investigation about maximum rise of trajectory of 30° and 45° inclined dense jets. Nature and Science 2012;10(11).
- 2- Flood susceptibility mapping using machine learning and remote sensing data in the Southern Karun Basin, Iran. Appl Geomat 16, 731–750 (2024). https://doi.org/10.1007/s12518-024-00582-7. (2020).
- 3- Comprehensive Risk Assessment of Sarkhoon Aquifer Salinization Using a Combination of Machine Learning Models. Journal of Ecohydrology, 7(1), 147-163. doi: 10.22059/ije.2020.287185.1197 (2020- in Farsi)

- 4- The effect of dam construction on the hydrological indicators of Shamil and Nyan dams in Hormozgan province. Journal of Ecohydrology, 10(2), 263-274. doi: 10.22059/ije.2023.354193.1709. (2023).
- 5- Integrated modelling for mapping spatial sources of dust in central Asia An important dust source in the global atmospheric system. Atmospheric Pollution Research 12 (9), 101173. DOI: 10.1016/j.apr.2021.101173. (2021)

## **Conference Papers** (5 Articles Relevant to the Course from 15 published Articles)

- 1- Numerical Simulation of Flow Dilution in Dense Currents over Sloped Surfaces with Cubic Obstacles. Tabriz university. Iran. (2017)
- 2- Flow-3D Simulation of T-Intake Hydraulics in Sibili Channel. 10th Iranian Hydraulics Conference. Iran. (2011)
- 3- Identifying the spatial relationship between land use and floodplains in the end basin of Great Karun). 17th National Conference on Watershed Management Sciences and Engineering of Iran (Watershed Management & Sustainable Food Security). (2021)
- 4- Detecting Natural Water Bodies and Flooding Areas Using Sentinel-1 Satellite-Radar Data. 4<sup>th</sup> International Congress of Developing Agriculture, Natural Resources, Environment and Tourism of Iran. (2019)
- 5- Groundwater Rise Causes in Dash-Abbas Plain. 1<sup>st</sup> National Agricultural Development Conference. Ahvaz, Iran. (2015)