

Zahra Jamshidzadeh, Ph.D.

Assistant Professor

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Educational Background

Ph.D. Civil- Water Engineering

K.N. Toosi University of Technology, Tehran, Iran (2013).

Title of Dissertation

Numerical modeling of saltwater intrusion into the groundwater based on density-driven flow,

M.Sc. Civil- Water Engineering

University of Tehran, Tehran, Iran (2007).

Title of Dissertation

Detection of leak location and discharge in pipelines using frequency analysis.

B.Sc. Civil Engineering

Isfahan University of Technology, Isfahan, Iran (1999).

Research interests

- Theories of flow and transport in porous media – heterogeneous porous media and associated numerical developments –single-phase, two-phase and multiphase flow in porous media
- Numerical Simulation of Groundwater & Surface Water, heat transfer physics in porous media, contaminant transport in variable saturation porous media.
- Laboratory experiences about seawater intrusion and related studies.
- Wastewater treatment technologies

Academic Experience

[2014-Present] Assistant professor, University of Kashan.

[2008-2010] Islamic Azad University, Kashan Unit, Civil Engineer Dept., teacher

[2000-2003] Technical and professional university of Kashan, Lecturer.

Professional Experience

[2003 up to now] Professional membership in Iranian construction engineering organization.

Courses taught

Fluid mechanic

Hydrology

Environmental engineering

Principles of water and wastewater treatment

Groundwater engineering

Advanced Engineering Mathematics

Application of GIS in civil engineering

Publications:

Journal paper:

1) **Jamshidzadeh Z.**, Ghasemzadeh H., The effects of cut-off wall on repulsing of salt water based on modeling of density driven groundwater flow and salt transport, Journal of Numerical Methods in Civil Engineering, In Press.

2) **Jamshidzadeh Z.**, Tsai F.T. C., Ghasemzadeh H., Mirbagheri S.A., Tavangari Barzi M., Hanor J.S., Dispersive thermohaline convection near salt domes: a case at Napoleonville Dome, southeast Louisiana, USA, Hydrogeology Journal 2015, DOI 10.1007/s10040-015-1251-4.

3) **Jamshidzadeh Z.**, Tsai F.T.C., Mirbagheri S.A., Ghasemzadeh H., Fluid dispersion effects on density-driven thermohaline flow and transport in porous media, *Advances in Water Resources* 2013; 61:12-28, doi:10.1016/j.advwatres.2013.08.006.

4) **Jamshidzadeh Z.**, Mirbagheri S.A., Evaluation of groundwater quantity and quality in the Kashan basin; Central Iran, *Desalination*, Volume 270, Issues 1-3, 1 April 2011, Pages 23-30.

5) **Jamshidzadeh Z.**, Tabesh M., The assessment of orifice formula for leak detection in water systems including unsteady friction term, *Journal of civil and surveying engineering* (2011), Vol. 45, N.2, pp 155-167 (Persian).

Conference paper:

1) **Jamshidzadeh z.**, Bench-Scale Experiment of Sawdust and Steel Furnace Slag in a Dual Media Recirculating Bio-Filter for Restaurant Grey-Water Treatment, 1st international conference on modern technologies in sciences, Amol University of Special Modern Technologies, 2017.

2) Issa R.A., **Jamshidzadeh z.**, Al-Asadi A.K., Response of Silica Fume Based Low Strength Concrete to Acid Attack, 1st international conference on modern technologies in sciences, Amol University of Special Modern Technologies, 2017.

3) **Jamshidzadeh Z.**, Bench-Scale Evaluation of Treated Wastewater Using Recirculating Sand Filter for Irrigation and Agriculture Usages Based on Quality Standards, 4th international conference of environmental planning and management, University of Tehran, Tehran, 2017 (Persian).

4) **Jamshidzadeh Z.**, Tavangari Barzi M., The effect of pumping on groundwater flow and salt spread in nonhomogeneous coastal aquifers based on density driven flow, 4th international conference of environmental planning and management, University of Tehran, Tehran, 2017 (Persian).

5) **Jamshidzadeh Z.**, Ghafoori M.A., Treated wastewater reuse for non-potable water usage: challenges and environmental risks for irrigations, the 2nd Iranian national congress of irrigation and drainage, Isfahan University of Technology (2016) (Persian).

6) **Jamshidzadeh Z.**, The effect of fault on salt water intrusion and groundwater quality around a hypothetical salt dome, the first national conference of drinking water demand and supply: challenges and solutions, Isfahan University of Technology (2016) (Persian).

7) **Jamshidzadeh Z.**, Arbab A., The use of recirculating bio-filters for gray water treatment , the first national conference of drinking water demand and supply: challenges and solutions, Isfahan University of Technology (2016) (Persian).

8) **Jamshidzadeh Z.**, Tsai F.T.C., Mirbagheri S.A., Ghasemzadeh H., Density-Driven Thermohaline Groundwater Flow and Brine Transport Near Salt Domes, AGU Fall Meeting 2012, San Francisco, CA, USA | 3-7 December 2012.

9) **Jamshidzadeh Z.**, Tabesh M., Evaluation of leak phenomenon in water systems based on frequency response method, the 4th National Congress on Civil Engineering (2008), University of Tehran. (Persian).

10) **Jamshidzadeh Z.**, Tabesh M., The assessment of orifice formula for leak detection in water systems based assuming transient flow, the 2nd Conference and Exhibition of Environmental Engineering (2008), University of Tehran. (Persian).

11) **Jamshidzadeh Z.**, Alavi Moghaddam M., Evaluation of surface water quality index WQI (case study: Karaj River), the first Conference and Exhibition of Environmental Engineering (2007), University of Tehran. (Persian).