

Curriculum Vitae

Personal Identities

Name: Mahdi Mollazadeh

Position: Assistant Professor

Address: Department of Civil Engineering, University of Birjand, Birjand, Iran.

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Date of Birth: 1980

Nationality: Iranian



Education

- **Ph.D. in Civil Engineering, Hydraulic structures, 2006-2013 Shahid Bahonar University of Kerman, Kerman, Iran**

Thesis title: Interaction of Water Waves with Semi-Infinite Floating Elastic Plates

- **M.Sc. in Civil Engineering, Hydraulic structures, 2002-2005 Shahid Bahonar University of Kerman, Kerman, Iran**

Thesis title: Shape Optimization of Concrete Gravity Dams Using Genetic Algorithm

- **B.Sc. in Civil Engineering, 1998-2002 Ferdowsi University of Mashhad, Iran**

Publications

Journals:

1. **M.Mollazadeh**, M.J. Khanjani, A. Tavakoli, 2011. *Applicability of the method of fundamental solutions to interaction of fully nonlinear water waves with a semi-infinite floating ice plate. Cold Regions Science and Technology.* 69, 52-58.
2. A. Asgari, M.H. Bagheripour, **M. Mollazadeh**, 2011. *A generalized analytical solution for a nonlinear infiltration equation using the exp-function method. Scientia Iranica.* 18(1), 28-35.
3. **M. Mollazadeh**, M.J. Khanjani, A. Tavakoli, 2012. *A B-spline scheme for Simulating Fully Nonlinear Interaction of Water Wave with a Semi-infinite Floating Plate. World Applied Sciences Journal.* 16, 93-101.

4. F. Mirafzali, A. Tavakoli, **M. Mollazadeh**, 2015. *Hydroelastic analysis of fully nonlinear water waves with floating elastic plate via multiple knots B-spline functions. Applied Ocean Research. 51, 171-180.*
5. A. Mohtashami, A. Akbarpour, **M. Mollazadeh**, 2017. *Development of two dimensional groundwater flow simulation model using meshless method based on MLS approximation function in unconfined aquifer in transient state. Journal of Hydroinformatics. Vol. 19, No. 5, 640-652.*
6. N. Majidi Khalilabad, **M. Mollazadeh**, A. Akbarpour and S. Khorashadizadeh, 2018. *Leak Detection in Water Distribution System Using Non-linear Kalman Filter, International Journal of Optimization in Civil Engineering, Vol. 8, No. 2, pp. 169-180.*
7. A. Mohtashami, A. Akbarpour, **M. Mollazadeh**, 2017. *Modeling of groundwater flow in unconfined aquifer in steady state with meshless local Petrov-Galerkin, Modares Mechanic Engineering Journal. 17(2): 393-403.*
8. S. Deymevar, A. Akbarpour, **M. Mollazadeh**, 2018. *Meshless Local Petrov-Galerkin (MLPG) Method for Simulation of Transient State Shallow Water Flows, Modares Mechanic Engineering Journal. 12(3): 512-524.*

Conference Presentations (in Proceedings):

1. A. Mohtashami, A. Akbarpour, **M. Mollazadeh**. *Numerical modeling of groundwater flow in confined aquifer with meshless local Petrov-Galerkin method. 16th Iranian Hydraulic Conference, Mohaghegh Ardabil University, Ardabil, Iran, 6-7 September, 2017.*
2. M.R. Barani, **M. Mollazadeh**. *Numerical investigation of velocity and pressure caused by obstacles in the stilling basin after edged stepped overflow Using FLOW-3D software. 5th National Conference on Applied Research in Civil Engineering, Architecture and Urban Management, K.N. Toosi University of Technology, Tehran, Iran, 3-4 January, 2018.*
3. M. Shoraka Shirvan, A. Sangabadi, **M. Mollazadeh**. *The effect of climatic and human hazards on water quality and quantity. 5th National Conference on Applied Research in Civil Engineering, Architecture and Urban Management, Khaje Nasirodin Toosi University, Tehran, Iran, 3-4 January, 2018.*
4. A.A. Abbasi Moghadam, **M. Mollazadeh**. *Crisis management of water and sewage distribution networks in natural disasters (flood). 5th National Conference on Applied Research in Civil Engineering, Architecture and Urban Management, Khaje Nasirodin Toosi University, Tehran, Iran, 3-4 January, 2018.*
5. A. Kheradpishe, **M. Mollazadeh**, A. Akbarpour, F. Mohammadi. *Numerical investigation into the effects of the negative step on the characteristics of the hydraulic jump in divergent stilling basins and bistable flows. Conference on Civil Engineering, Architecture and Urbanism of the Islamic Countries, University of Tabriz, Tabriz, Iran, 10 May, 2018.*
6. S. Deymevar, A. Akbarpour, **M. Mollazadeh**. *Numerical solution of shallow water equations using meshless local Petrov-Galerkin method. Conference on Civil*

Engineering, Architecture and Urbanism of the Islamic Countries, University of Tabriz, Tabriz, Iran, 10 May, 2018.

7. E. Karimzadeh, **M. Mollazadeh**. Flow simulation in rectangular edge weir and investigation of velocity and pressure parameters due to geometric changes using FLOW-3D software. 3rd International Conference on New Architectural and Construction Findings of Iran Building, University of Tehran, Tehran, Iran, 19-20 December, 2018.
8. **M. Mollazadeh**, A.M. Jahan, S. Jahan. New damage identification methods for hydraulic structures health monitoring. 1th National Conference on Modeling and New technologies in Water Management, Birjand University, Birjand, 20-21 November, 2018.
9. E. Karimzadeh, **M. Mollazadeh**. Investigation of climate change effects on temperature and precipitation parameters of Birjand synoptic station in 2018-2040 using SDSM Model. International Conference on Civil Engineering, Architecture and Urban Management in Iran, Tehran, Iran, 19 December, 2018.
10. S. Khosravi, **M. Mollazadeh**. Evaluation of water quality of eight qanats in South Khorasan province. National Symposium on Ferdows Balade Qanat, Birjand University, Birjand, 12-13 June, 2019.
11. A.H. Zamanipour, **M. Mollazadeh**. Providing a solution to protect qanats from floods. National Symposium on Ferdows Balade Qanat, Birjand University, Birjand, 12-13 June, 2019.
12. A. Mirzayi Yazdi, **M. Mollazadeh**, A. Akbarpour. Delineation of well capture zones using FEFLOW software. National Symposium on Ferdows Balade Qanat, Birjand University, Birjand, 12-13 June, 2019.
13. R. Shamshirgaran, **M. Mollazadeh**. Safety engineering in dam and its role in comprehensive crisis management. 6th National Conference on Applied Research in Civil Engineering, Architecture and Urban Management, K.N. Toosi University of Technology Tehran, Iran, 13-14 June, 2019.
14. P. Eslami, **M. Mollazadeh**. Qualitative evaluation of Effin river for operation, using IRWQI index. 14th National conference on Watershed Management Sciences and Engineering of IRAN, Urmia University, Urmia, Iran, 16-17 June, 2019.
15. M. Riahi, **M. Mollazadeh**. Investigation of the effect of different methods of reducing water evaporation in reservoirs for water resources management to deal with the water crisis (case study). Third National Conference on Coastal Water Resources Management, Sari Agricultural Sciences and Natural Resources University, Sari, Iran, 10 October, 2019.

Book Chapter

- N. Majidi, **M. Mollazadeh**, A. Akbarpour, S. Khorashadizadeh, *Leak Detection in Water Transmission Lines using Kalman Filters and Hydraulic Modelling. Environmental Planning and Management (chapter 6), pp. 337-340, Cambridge Scholars Publishing, 2018.*

Technical Reviewer

- *Ferdowsi Civil Engineering*
- *Scientia Iranica*
- *Iranian Water Resources Research*
- *Ocean Engineering*
- *Applied Water Science*
- *Journal of Water and Soil Conservation*
- *Journal of Hydrosiences and Environment (JHE)*

Topics of Research Interest

- *Hydroelastic Analysis*
- *Hydraulic Structures Analysis and optimization.*
- *Dam Engineering*
- *Soft computing (genetic algorithm, particle swarm optimization, etc).*

Teaching

Undergraduate:

- *Fluid Mechanics*
- *Open-Channel Hydraulics*
- *Statics*
- *Strength of Materials I, II*
- *Design of Steel Structures*
- *Hydraulic Structures*
- *Numerical Computations*

Graduate:

- *Advanced Hydraulics*
- *Design of Hydraulic Structures*

IT Skills

- *Knowledge of programming with FORTRAN and MATLAB.*
- *Ansys.*
- *Geo-Slope*