

Personal Details

First Name: Seyed Mohammad

Last Name: Hosseini Moghari

Date of Birth: 24 Feb 1989

Nationality: Iranian

Address: Department of Irrigation and Reclamation Engineering, University of Tehran, Karaj, Iran.

E-mail: Hosseini_SM@ut.ac.ir

Tel: +989123205851

[Google scholar](#)

[Researchgate](#)

[LinkedIn](#)



Education History

2013-2018	University of Tehran, Ph.D. of Water Resources Engineering (score: 18.22 out of 20) (Thesis title: <i>Assessment of Drought Monitoring and Forecasting Using GRACE Satellite Observations and Outputs of Land Surface Models across Iran</i>)
2016-2017 (9 months)	Visitor at Goethe University of Frankfurt (Supervisor: Petra Döll)
2011-2013	University of Tehran, Master of Water Resources Engineering (score: 18.03 out of 20) (Thesis title: <i>Development of Drought Monitoring and Forecasting System-Case Study: Gorganrood basin</i>)
2007-2011	University of Tehran, Bachelor of Water Science (score: 16.29 out of 20)

Teaching Experiences

2012- 2016	Teaching Assistant (Surface water hydrology)
2012-2013	Teaching Assistant (Groundwater hydrology)

Publications

Journal Papers:

2018

- [1] **Hosseini-Moghari, S. M.**, Araghinejad, S., Tourian, M. J., Ebrahimi, K., and Döll, P. (2018). Quantifying the impacts of human water use and climate variations on recent drying of Lake Urmia basin: the value of different sets of spaceborne and in-situ data for calibrating a hydrological model. *Hydrology and Earth System Sciences Discussions*.
- [2] **Hosseini-Moghari, S.M.**, Araghinejad, S., Ebrahimi, K., and Tourian M.J. Introducing modified total storage deficit index (MTSDI) for drought monitoring using GRACE observations. *Ecological Indicators*, 101, 465-475.
- [3] **Hosseini-Moghari, S. M.**, Araghinejad, S., & Ebrahimi, K. (2018). Spatio-Temporal Evaluation of Global Gridded Precipitation Datasets across Iran. *Hydrological Science Journal*, 63(11), 1669-1688.
- [4] Dezfooli, D., **Hosseini-Moghari, S. M.**, Ebrahimi, K., & Araghinejad, S. (2018). Classification of water quality status based on minimum quality parameters: application of machine learning techniques. *Modeling Earth Systems and Environment*, 4(1), 311–324.
- [5] Dezfooli, D., Abdollahi, B., **Hosseini-Moghari, S. M.**, & Ebrahimi, K. (2018). A comparison between high-resolution satellite precipitation estimates and gauge measured data: case study of Gorganrood basin, Iran. *Journal of Water Supply: Research and Technology-Aqua*, jws2018062.
- [6] Araghinejad, S., Fayaz, N., & **Hosseini-Moghari, S. M.** (2018). Development of a Hybrid Data Driven Model for Hydrological Estimation. *Water Resources Management*, 32(11), 3737–3750.

2017

- [7] **Hosseini-Moghari, S. M.**, Araghinejad, S., & Azarnivand, A. (2017). Fuzzy analytic hierarchy process approach in drought management: case study of gorganrood basin, Iran. *Journal of Water Supply: Research and Technology-Aqua*, 66(3), 207-218.
- [8] **Hosseini-Moghari, S. M.**, Araghinejad, S., & Azarnivand, A. (2017). Drought forecasting using data-driven methods and an evolutionary algorithm. *Modeling Earth Systems and Environment*, 3(4), 1675-1689.
- [9] Chitsaz, N., & **Hosseini-Moghari, S. M.** (2017). Introduction of new datasets of drought indices based on multivariate methods in semi-arid regions. *Hydrology Research*, nh2017254.
- [10] Bozorg-Haddad, O., Azarnivand, A., **Hosseini-Moghari, S. M.**, & Loáiciga, H. A. (2017). Optimal operation of reservoir systems with the symbiotic organisms search (SOS) algorithm. *Journal of Hydroinformatics*, jh2017085.

2016

- [11] Moravej, M., & **Hosseini-Moghari, S. M.** (2016). Large Scale Reservoirs System Operation Optimization: The Interior Search Algorithm (ISA) Approach. *Water resources management*, 30(10), 3389-3407.
- [12] Bozorg-Haddad, O., Azarnivand, A., **Hosseini-Moghari, S. M.**, & Loáiciga, H. A. (2016). Development of a comparative multiple criteria framework for ranking pareto optimal solutions of a multiobjective reservoir operation problem. *Journal of Irrigation and Drainage Engineering*, 142(7), 04016019.
- [13] Bozorg-Haddad, O., Azarnivand, A., **Hosseini-Moghari, S. M.**, & Loáiciga, H. A. (2016). WASPAS Application and evolutionary algorithm benchmarking in optimal reservoir optimization problems. *Journal of Water Resources Planning and Management*, 143(1), 04016070.

2015

- [14] **Hosseini-Moghari, S. M.**, Ebrahimi, K., & Azarnivand, A. (2015). Groundwater quality assessment with respect to fuzzy water quality index (FWQI): an application of expert systems in environmental monitoring. *Environmental Earth Sciences*, 74(10), 7229-7238.
- [15] **Hosseini-Moghari, S. M.**, & Araghinejad, S. (2015). Monthly and seasonal drought forecasting using statistical neural networks. *Environmental Earth Sciences*, 74(1), 397-412.
- [16] **Hosseini-Moghari, S. M.**, Morovati, R., Moghadas, M., & Araghinejad, S. (2015). Optimum operation of reservoir using two evolutionary algorithms: imperialist competitive algorithm (ICA) and cuckoo optimization algorithm (COA). *Water resources management*, 29(10), 3749-3769.
- [17] Haddad, O. B., **Hosseini-Moghari, S. M.**, & Loáiciga, H. A. (2015). Biogeography-based optimization algorithm for optimal operation of reservoir systems. *Journal of Water Resources Planning and Management*, 142(1), 04015034.

Conference papers:

- [18] **Hosseini-Moghari, S.M.**, Araghinejad, S. and Ebrahimi, K. (November 2018). Monthly Precipitation Assessment: a misleading tool for understanding the effects of climate change. 8th Global FRIEND-Water Conference, November 6-9, 2018, Beijing, China.

Books:

- [19] Araghinejad, S., **Hosseini-Moghari, S.M.**, & Eslamian, S. (2017). Book Chapter: Application of Data-Driven Models in Drought Forecasting. *Handbook of Drought and Water Scarcity: Principles of Drought and Water Scarcity*. CRC Press, Taylor and Francis Group.
- [20] Araghinejad, S., **Hosseini-Moghari, S.M.**, & Eslamian, S. (2017). Book Chapter: Reservoir Operation during Drought. *Handbook of Drought and Water Scarcity: Management of Drought and Water Scarcity*. CRC Press, Taylor and Francis Group.
- [21] Araghinejad, S., **Hosseini-Moghari, S.M.** Book Chapter: Genetic Algorithm. *Book of Data-Driven Modeling: Using MATLAB® in Water Resources and Environmental Engineering*. Springer Science & Business Media. (In the next edition).

Research Projects

- [1] Cooperation in "Long-term stream flow forecasting for Karun basin". Research project funded by the Iran water and power resources development (2013-2017).
- [2] Cooperation in "Drought monitoring in the Zayanderud basin using remote sensing and ground-based drought indices". Research project funded by the ministry of energy, Iran (2015-2016).

Skills

- Microsoft XP applications (Word, Excel, PowerPoint)
- Matlab programming
- Fully familiar with neural network models (MLP, GRNN, RBF, ...)
- Fully familiar with optimization models (NLP, GA, PSO, NSGA-II...)
- Familiar with multi-criteria decision-making methods (AHP, Topsis, ...)
- Familiar with R programming
- Familiar with C# programming
- Familiar with fuzzy logic

Research Interests

- Drought (monitoring, forecasting and management)
- Climate change
- Hydrological modelling
- Assessing the impacts of human and climate on water resources
- Application of global datasets in water resources
- Application of remote sensing in water resources
- Hydrological forecasting
- Optimization

External Service

Paper reviewer for Water Resources Management, Hydrology Research, Environmental Earth Sciences and Water Supply.

Referees

- [1] **Dr. Shahab Araghinejad**, Associate Professor, Department of Irrigation and Reclamation Engineering, University of Tehran, Karaj, Iran. E-mail: Araghinejad@ut.ac.ir
- [2] **Dr. Kumars Ebrahimi**, Professor, Department of Irrigation and Reclamation Engineering, University of Tehran, Karaj, Iran. E-mail: Ebrahimik@ut.ac.ir
- [3] **Dr. Petra Döll**, Professor, Institute of Physical Geography, Goethe University Frankfurt, Frankfurt am Main, Germany. E-mail: P.doell@em.uni-frankfurt.de
- [4] **Dr. Mohammad J. Tourian**, Research assistant, University of Stuttgart, Institute of Geodesy (GIS), Stuttgart, Germany. E-mail: Tourian@gis.uni-stuttgart.de