

Maryam Torkashvand

maryam-torkashvand@uiowa.edu

 <https://www.linkedin.com/in/maryam-torkashvand/>

 <https://www.researchgate.net/profile/Maryam-Torkashvand>

---

## EDUCATION

- 2022-Present      **Ph.D. in Geographic Information Science and Cartography**  
*Department of Geography and Sustainability Sciences, The University of Iowa, Iowa City, Iowa.*
- 2017-2020      **Master of Science in Remote Sensing and Geographic Information System (RS & GIS)- Satellite Meteorology**  
*Science and Research Branch, Islamic Azad University, Tehran, Iran. GPA: 3.92/4*  
Thesis:            A new framework for risk assessment of groundwater pollution  
Supervisors:    Dr. Aminreza Neshat, Dr. Saman Javadi
- 2012-2014      **Bachelor of Engineering in Surveying Engineering**  
*Shahid Rajaee Teacher Training University, Tehran, Iran.*  
Thesis:            Investigation on the concept of integration of Geographic information System (GIS) and Global Positioning System (GPS)  
Supervisor:     Dr. Abbas Sheykh Mohammad Zadeh
- 2008-2010      **Associate of Science in Civil Engineering- Photogrammetry**  
*Institute of surveying and Mapping of National Geography Organization, Tehran, Iran.*

---

## RESEARCH INTERESTS

- Geographic Information Science
- Risk Assessment
- Geo-Spatial Analysis
- Human-Geography
- Numerical Modeling

---

## PUBLICATIONS

- Torkashvand, M., Neshat, A., Javadi, S., Yousefi, H. DRASTIC framework improvement using Step-wise Weight Assessment Ratio Analysis (SWARA) and combination of Genetic Algorithm and Entropy. 2020. *Environmental Science and Pollution Research*. <https://doi.org/10.1007/s11356-020-11406-7>.
- Torkashvand, M., Neshat, A., Javadi, S., Pradhan, B. New hybrid evolutionary algorithm for optimizing index-based groundwater vulnerability assessment method. 2021. *Journal of Hydrology*, 598, 126446. <https://doi.org/10.1016/j.jhydrol.2021.126446>.
- Torkashvand, M., Neshat, A., Javadi, S., Yousefi, H. A comparative evaluation of groundwater vulnerability based on integrated DRASTIC model using various hybrid methods. (Submitted)
- Torkashvand, M., Neshat, A., Javadi, S., Yousefi, H. An improved DRASTIC-based groundwater vulnerability assessment using particle swarm optimization (PSO) algorithm. *Proceedings of IAHR2019, the 46th Annual Congress of the International Association of Hydrogeologists, Málaga (Spain), September 22-27, 2019*.

---

## CONFERENCES ATTENDED

- Torkashvand M., Neshat A., Javadi S., Yousefi H. (2021) Improvement of GIS-Based DRASTIC Model Using Step-Wise Weight Assessment Ratio Analysis (SWARA) and Two New Hybrid Frameworks (Iran). *In: Ksibi M. et al. (eds) Recent Advances in Environmental Science from the Euro-Mediterranean and Surrounding Regions (2nd Edition). EMCEI 2019. Environmental Science and Engineering. Springer, Cham.* [https://doi.org/10.1007/978-3-030-51210-1\\_283](https://doi.org/10.1007/978-3-030-51210-1_283).

---

## SKILLS

Programming  
Languages

MATLAB, Python

Software

ESRI ArcGIS, QGIS, AutoCAD Civil 3D, ENVI, SPSS, Adobe Photoshop

Languages

Persian: Native

English: IELTS test overall score: 7

Listening: 7.5 / Reading: 7.5 / Writing: 6.5 / Speaking: 7

Other Skills

Machine Learning, Team Work, Risk Management, Crew Resource Management (CRM)

---