

# Maliheh Abbaszadeh

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## *Profile*

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- **Date of Birth** : the 6th of Sep 1984
- **Marital Status** : Married
- **Current position** : Assistant Professor
- **Nationality** : Iranian
- **Country of residence** : Iran
- **Languages** : Persian (Native) – English

## *Education*

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**Sep. 2010- Sep. 2014** PhD in Mineral Exploration Engineering, Amirkabir University of Technology (Polytechnic of Tehran), Iran.

Supervisor: Profs. Ardeshir Hezarkhani

Thesis grade: ‘Excellent’.

**Sep. 2007- Dec. 2009** M.Sc. in mineral Exploration Engineering (Remote sensing), Amirkabir University of Technology (Polytechnic of Tehran), Iran.

Supervisors: Profs. Ardeshir Hezarkhani

Thesis grade: ‘Excellent’.

**Sep 2003- Sep. 2007** B.Sc. Field: Mineral Exploration Engineering, Isfahan University of technology, Iran.

### ***Research Interests***

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- Geochemical Exploration
- Remote Sensing and Mineral Potential Mapping
- Artificial Intelligence Application in Mineral Exploration

### ***Academic Experience***

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**Dec. 2014- Present** Assistant Professor, University of Kashan

- Remote sensing and GIS
- Advanced Remote sensing and GIS
- Sampling
- Planning the geochemical projects
- Mineral exploration planning
- Mineral resource evaluation
- Structural Geology
- Environmental Geochemistry
- Application of Intelligent Methods in Exploration

### ***Reviewer of Journals***

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1. Journal of Asian Earth Sciences
2. Arabian Journal of Geosciences
3. Iranian South Medical Journal

## ***Scientific Societies Membership***

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Member of Iranian Society of mining engineering, Iran.

Member of Iranian mining engineering organization, Iran.

## ***Publications***

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### ***Journal Papers***

Esmaeili, M., Aalianvari, A., & **Abbaszadeh, M.**, (2023). Permeability zoning in Amirkabir tunnel using Support vector machine. *Engineering Geology*.

Akbari, F., Afzali, A., & **Abbaszadeh, M.** (2023). Gypsum Factory Site Selection in Qom Province using Different Multi-Criteria Decision-Making Methods and Remote Sensing Techniques. *Environmental Energy and Economic Research*, 7(2).

**Abbaszadeh, M.**, Soltani-Mohammadi, S., & Ahmed, A. N. (2022). Optimization of support vector machine parameters in modeling of Iju deposit mineralization and alteration zones using particle swarm optimization algorithm and grid search method. *Computers & Geosciences*, 105140.

Soltani-Mohammadi, S., Hoseinian, F. S., **Abbaszadeh, M.**, & Khodadadzadeh, M. (2022). Grade estimation using a hybrid method of back-propagation artificial neural network and particle swarm optimization with integrated samples coordinate and local variability. *Computers & Geosciences*, 159, 104981.

Soltani-Mohammadi, S., **Abbaszadeh, M.**, Hezarkhani, A., & Carranza, E. J. M. (2022). Uncertainty Analysis of Thermodynamic Variables of Fluid Inclusions: A Deposit-Scale Spatial Exploratory Data Modeling through Fuzzy Kriging. *Natural Resources Research*, 31(1), 51-65.

**Abbaszadeh, M.**, Ehteram, M., Ahmed, A. N., Singh, V. P., & Elshafie, A. (2021). The copper grade estimation of porphyry deposits using machine learning algorithms and Henry gas solubility optimization. *Earth Science Informatics*, 14(4), 2049-2075.

**Abbaszadeh, M.** (2021). Application of support vector regression method in estimating and modeling of fluid inclusion parameters in Sungun porphyry copper deposit. *Researches in Earth Sciences*, 12(3), 22-39.

Shafiee, Z., **Abbaszadeh, M.**, Soltani-Mohammadi, S., & Dehghani, M. (2020). Comparison of artificial neural networks and support vector machine classifiers for 3D modeling of mineralization zones (Case study: Miduk copper Deposit). *Iranian Journal of Mining Engineering*, 14(45), 13-24.

**Abbaszadeh, M.** (2019). Grade Estimation in Esfordi Phosphate Deposit Using Support Vector Regression Method. *Journal of Mineral Resources Engineering*, 4(4), 1-16.

**Maliheh Abbaszadeh**, Ardeshir Hezarkhani, Saeed Soltani-Mohammadi, 2019, *Potassic and Phyllic Alteration Zoning Based on the Results of 3D Modeling of Fluid Inclusion Data by Artificial Neural Networks*, Scientific Quarterly Journal of Geosciences.

**Maliheh Abbaszadeh**, Rouhollah Mirzaei, Asra Bakhtiari, 2019, *Risk Assessment and Spatial Modeling of Heavy Metals Contamination in Topsoil around Venarj Manganese Mine by Artificial Neural Networks Method*, Journal of Environmental Health Engineering.

**Maliheh Abbaszadeh**, Saeed Soltani-Mohammadi, Mahyar Yousefi, 2018, *Modelling Spatial Variation of Arsenic Pollutant Using Empirical Bayesian Kriging in the Southern Part of Kerman Province*. Iran South Med J., 20 (6) :584-594

**Maliheh Abbaszadeh**, Ardeshir Hezarkhani, Saeed Soltani-Mohammadi, 2018, *Potassic and Phyllic Alteration Zoning Based on the Results of 3D Modeling of Fluid Inclusion Data by Artificial Neural Networks*, Scientific Quarterly Journal of Geosciences, Accepted.

**Maliheh Abbaszadeh**, Ardeshir Hezarkhani, Saeed Soltani-Mohammadi, 2016, *Proposing Drilling Locations Based on the 3D Modeling Results of Fluid inclusion Data Using the Support Vector Regression Method*, Journal of Geochemical Exploration.

**Maliheh Abbaszadeh**, Ardeshir Hezarkhani, Saeed Soltani-Mohammadi, 2015, *Classification of Alteration Zones Based on Whole-Rock Geochemical Data Using Support Vector Machine*, journal of Geological Society of India, Volume 85, issue 4.

Mohammad Esmaeili, Alireaza Salimi, Carsten Drebenstedt, **Maliheh Abbaszadeh**, Abbas Aghajani Bazzazi, 2014, *Application of PCA, SVR, and ANFIS for modeling of rock fragmentation*, Arabian Journal of Geosciences 8(9): 6881-6893.

**Maliheh Abbaszadeh**, Ardeshir Hezarkhani, Saeed Soltani-Mohammadi, 2013, *An SVM-based machine learning method for the separation of alteration zones in Sungun porphyry copper deposit*, Chemie der Erde /Geochemistry.

**Maliheh Abbaszadeh**, Ardeshir Hezarkhani, 2013, *Enhancement of hydrothermal alteration zones using the spectral feature fitting method in Rabor area, Kerman, Iran*, Arabian Journal of Geosciences 6(6): 1957-1964.

**Maliheh Abbaszadeh**, Ardeshir Hezarkhani, 2011, *Hydrothermal Alteration Mapping Using ASTER Images in the Rabor Area, Kerman*, Earth Sciences Quarterly Journal, Vol. 20, Issue 78, p.p. 123-128.

Saeed Soltani, **Maliheh Abbaszadeh**, Ardeshir Hezarkhani, 2009, *Optimization of environmental additional sampling using spatial simulated annealing in Sepahan-Shahr area*, Iranian Journal of Environmental Geology, 2009.

### ***Conference Papers***

1. **Maliheh Abbaszadeh**, 2018, *Application of Landsat 8 Satellite Images in Recognition of Mineral Prospectivity Areas in Aran 1:100000 Geological Map*, 10<sup>th</sup> Symposium of Iranian Society of Economic Geology, Isfahan, Iran.

2. Fahimeh Akbari, **Maliheh Abbaszadeh**, Afsaneh Afzali, 2018, *Identification of iron mineralization in Qom province using OLI satellite images*, 10th Symposium of Iranian Society of Economic Geology, Isfahan, Iran.

3. Fahimeh Akbari, Afsaneh Afzali, **Maliheh Abbaszadeh**, 2018, *Ranking of suitable areas for construction of cement Plant using fuzzy topsis method in Qom province*, 1st International

& 3rd National Conference on Sustainable Management of Soil and Environmental Resources, Kerman, Iran.

4. Saeed Soltani Mohammadi, **Maliheh Abbaszadeh**, 2018, *Investigating the unbiasedness of comprehensive average grade- tonnage model in quantitative resource evaluation of Iran's porphyry copper deposits*, 36<sup>th</sup> National and the 3<sup>rd</sup> International Geosciences Congress, Tehran, Iran.

5. **Maliheh Abbaszadeh**, Mohammad Safa, 2018, *Recognition of Mineral Prospectivity Areas for Copper and Iron Using ETM+ Satellite Images in Golestan, Qom Province*, National Conference on Metallurgy and Mining Engineering of Iran, Ahvaz, Iran.

6. **Maliheh Abbaszadeh**, Ardeshir Hezarkhani, 2017, *Estimation of Thermodynamic Parameters from Fluid Inclusion Studies by Machine Learning Algorithm Method*, Second Biennial Iranian National Fluid Inclusions Conference (INFI Conference –II), Zanzan, Iran.

7. **Maliheh Abbaszadeh**, Ardeshir Hezarkhani, 2016, *Three-dimensional modeling of data from fluid inclusion studies*, 35<sup>th</sup> National Geosciences Congress, Tehran, Iran.

8. **Maliheh Abbaszadeh**, Mohammad Reza Majdaddin, 2016, *Second National Conference of Geology and Exploration of Resources, Identification of Mineral Prospectivity Areas for Copper and Iron Using Landsat 7 ETM+ Satellite Images in the Southeastern Part of Kashan*, Shiraz, Iran.

9. **Maliheh Abbaszadeh**, Elham Ghadiri Sufi, 2015, *Preparation of Work Breakdown Structure in Environmental Studies of Porphyry Copper Deposits*, 6<sup>th</sup> National Conference of Environmental Geology, Islamshahr, Iran.