

# Curriculum Vitae

## Ramin Rafiee



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### 1) Personal Information:

Surname: **Rafiee**  
First name: **Ramin**  
Gender: **male**  
Nationality: **Iranian**  
Date of birth: **august, 1983**  
Place of Birth: **Isfahan**

### 2) EDUCATIONAL BACKGROUND:

Degree	Field	University	Date
B.Sc.	<i>Mining engineering</i>	<i>Yazd University (Yazd, Iran)</i>	<i>2002-06</i>
<b>B.Sc. thesis subject:</b> Selection support system for khadangestan water transporting tunnel by using experimental and numerical methods and compare them, under supervision of Dr. Mohmmad Fatehi			
M.Sc.	<i>Mining engineering</i>	<i>Shahrood University of Technology (Semnan, Iran)</i>	<i>2007-09</i>
<b>M.Sc. thesis subject:</b> Selection of suitable support system for Beheshtabad water transporting tunnel by using MADM method, under supervision of Prof. Mohammad Ataei and Dr. Esmail Jalali			
PhD	<i>Mining engineering</i>	<i>Shahrood University of Technology (Semnan, Iran)</i>	<i>2011-2015</i>
<b>Ph.D. thesis subject:</b> Determination Cavability Index of Rock Mass in Blok Caving Mines Using Rock Engineering System (RES)			

### 3) WORK EXPERIENCES:

Occupation	Company	Location	Date
<i>Supervisor</i>	<i>Zayand Ab consulting engineering company</i>	<i>Khadangestan tunnel</i>	<i>2006-2007</i>
<i>Supervisor</i>	<i>Zayand Ab consulting engineering company</i>	<i>Behesht Abad tunnel</i>	<i>2009-2010</i>
<i>Senior Engineer</i>	<i>Zayand Ab consulting engineering company</i>	<i>Alamoot tunnel</i>	<i>2010-2011</i>
<i>Supervisor</i>	<i>Zayand Ab consulting engineering company</i>	<i>Rock mechanic lab</i>	<i>2011-2012</i>
<i>Senior Mining Engineer</i>	<i>KCE consulting engineering company</i>	<i>Kahang</i>	<i>2013-2014</i>

### 4) ACHIEVEMENTS:

- *The second best student entering Shahrood University of Technology in 2007-2008 in mining Engineering*
- *The first best student entering Shahrood University of Technology in 2011-Now in mining Engineering*
- *Top researcher Student in Shahrood University of technology in 2014 and 2015*

#### 5) SELECTED RESEARCH PROJECTS:

Title	Subject	Date
<i>Analysis of coal mine roof fall rate using fuzzy reasoning techniques</i>	<i>Training seminar</i>	<i>2007</i>
<i>Pillar design issue for underground stone mine</i>	<i>Training seminar</i>	<i>2008</i>
<i>A methodology for evolution and classification of rock mass quality on tunnel engineering</i>	<i>Training seminar</i>	<i>2008</i>
<i>Consolidation method in tunnel</i>	<i>Training seminar</i>	<i>2007</i>
<i>Assessment and risk analysis of tunneling, case study Koohrang tunnel</i>	<i>Research projects</i>	<i>2011</i>
<i>Optimization of Pillar Size in Stop and Pillar Mines Considering Extraction Sequences</i>	<i>Research projects</i>	<i>2012</i>
<i>The Optimum Support Selection Using FDAHP Method for Beheshtabad Water Transporting Tunnel</i>	<i>Research projects</i>	<i>2012</i>
<i>Assessment of influence parameters on the cavability of coal mines</i>	<i>Research projects</i>	<i>2013</i>
<i>Determination of Cavability, dimension of undercut and draw points in Kahang Copper Mine.</i>	<i>Research projects</i>	<i>2017</i>

#### 6) MEMBERSHIPS:

1	<i>Member of Iranian Mining Engineering Organization</i>
2	<i>Member of Iranian tunneling association</i>

#### 7) PUBLICATIONS:

1. **R. Rafiee**, M. Ataei, S.M.E. Jalali, (2013), "*The optimum support design selection by using FAHP method for the Beheshtabad water transporting tunnel in Naien*", Iranian Journal of Fuzzy Systems Vol. 10, No. 6, pp. 39-51
2. **R. rafiee**, M. Ataei, M. kamali, (2013), "*Rock mass classification systems for evaluating tunnel stability using binary and multinomial logistic regression (LR)*", Journal of Geology and Mining Research, Vol. 5(4), pp. 97-107
3. **R. Rafiee**, M. Ataei and M. Kamali, (2011), "*Probabilistic stability analysis of Naien water transporting tunnel and selection of support system using TOPSIS approach*", Scientific Research and Essays Vol. 6(21), pp. 4442-4454, 30 September
4. **R. Rafiee**, M. Ataei, S.M.E. Jalali, "*The optimum support design selection by using Fuzzy Delphi Analytic Hierarchy Process method for the Beheshtabad water transporting tunnel in Naien*", journal of Earth & Resources, (2011), PP. 41-49
5. H. Abedian, K. Mohammadi, **R. Rafiee**, (2013) "*Optimizing monitoring network of water table by geostatistical methods*", Journal of Geology and Mining Research, Vol. 5(9), pp. 223-23

6. **Rafiee, R.**, Ataei, M., & Khalookakaie, R. (2015). A new cavability index in block caving mines using fuzzy rock engineering system. *International Journal of Rock Mechanics and Mining Sciences*, 77, 68-76
7. **Rafiee, R.**, Khalokakaie, R, Ataei, M., Jalali, S. M. E., & Sereshki, F., (2015), Improvement of Rock Engineering System Coding Using Fuzzy Numbers, *Journal of Intelligent & Fuzzy Systems*, 2, accepted for publish
8. **R. Rafiei**, M. Ataei, M. E. Jalali, M. Hayati. (2014). The appropriate support system assessment and selection for tunnel using LA method, *Analytical and Numerical Methods in Mining Engineering*
9. **Rafiee, R.**, Ataei, M., Khalokakaie, R., Jalali, S. M. E., & Sereshki, F., (2015) "A fuzzy rock engineering system to assess rock mass cavability in block caving mines" *Neural Computing and Applications Journal*
10. **R. Rafiee**, M. Ataei, R. Khalookakie, S.M.E. Jalali, F. Sreshki, (2014), "Determination and Assessment of Parameters Influencing Rock Mass Cavability in Block Caving Mines Using the Probabilistic Rock Engineering System" *Rock Mech Rock Eng journal*
11. **R. Rafiee**, R. Khalookakie, M. Ataei, S.M.E. Jalali, F. Sreshki, A. Azarfar, (2016), Improvement of rock engineering system coding using fuzzy numbers, *Journal of Intelligent & Fuzzy Systems* 30 705-715
12. **R. Rafiee**, M. Ataei, A. Azarfar, (2017) "Determination of optimum cutoff grades to maximize net present value by using Imperialism Competitive Algorithm (ICA)", *Analytical and Numerical Methods in Mining Engineering (in Persian)*
13. **R. Rafiee**, A. Ramezanzadeh, F. Sereshki, S.M.E. Jalali, (2013), "The effect of discontinuity properties on the steady state flow of water in the tunnel", *Tunneling and Underground Space Engineering*,
14. Yaghoobi, M., **Rafiee, R.**, Najafi, M. (2017). Comparing the "modified split and fender" and "Shortwall" Methods for the Pillar Recovery in Room and Pillar Coal Mining Using A 3D Finite difference modeling in Tabas Central Coal Mine, Iran, *Analytical and Numerical Methods in Mining Engineering*
15. Noroozi, M., **Rafiee, R.**, & Najafi, M. (2018). Stability analysis of support systems using a coupled FEM-DFN model (Case study: a diversion tunnel at Lorestan dam site, Iran). *Journal of Mining and Environment*.
16. **Rafiee, R.**, Ataei, M., Khalookakaie, R., Jalali, S. E., Sereshki, F., & Noroozi, M. (2018). Numerical modeling of influence parameters in cavability of rock mass in block caving mines. *International Journal of Rock Mechanics and Mining Sciences*, 105, 22-27.
17. **Rafiee, R.**, Mohammadi, S., Ataei, M., & Khalookakaie, R. (2018). Application of fuzzy RES and fuzzy DEMATEL in the rock behavioral systems under uncertainty. *Geosystem Engineering*, 1-12.
18. **Rafiee, R.**, & Azarfar, A. (2018). Improvement of coal mine roof rating classification using fuzzy type-2. *Journal of Mining and Environment*.
19. Zebarjadi Dana, H., Khaloo Kakaie, **R., Rafiee, R.**, & Yarahmadi Bafghi, A. R. (2018). Effects of geometrical and geomechanical properties on slope stability of open-pit mines using 2D and 3D finite difference methods. *Journal of Mining and Environment*, 9(4), 941-957.
20. **R. Rafiee**, M. Noroozi, M.R Pirhooshiyran, (2018), Stability Analysis of Major Apexes in Block Caving Mines and Designing Proper Support System for Transportation Level, *Numerical Methods in Mining Engineering (in Persian)*

## 8) CONFERENCES:

1. **R. Rafiee**, M. Ataei, S.M.E. Jalali, "Design support system of Asaluye-Parsiyan tunnel by using of empirical and fuzzy methods and comparison between them", 8<sup>th</sup> Iranian tunneling conference, Tarbiat modares, Tehran, May 2009
2. **R. Rafiee**, M. Ataei, "A modification to rock mass rating (RMR) using fuzzy sets", 6<sup>th</sup> Iranian Engineering Geology and the Environment conference, Tarbiat modares, Tehran, October 2009
3. **R.Rafiee**, R. Mikaeil, M.Ataei, S.M.E. Jalali, "Estimation of ground water flow in the Beheshtabad tunnelby using analytical and numerical methods", 3<sup>th</sup> Iranian conference of mining engineering, Bafgh, yazd, January 2010
4. **R.Rafiee**, M.Ataei, O.Foroogh, " Optimum support system of Asloye-Parsiyan tunnel by using fuzzy logic", 3<sup>th</sup> Iranian conference of mining engineering, Bafgh, yazd, January 2010

5. **R. Rafiee**, M. Ataei, S.M.E. Jalali, Probabilistic stability analysis of Beheshtabad water transporting tunnel by using simulation Latin hypercube method, 3<sup>th</sup> Iranian conference of mining engineering, Bafgh, yazd, January 2010
6. **R. Rafiee**, M. Najafi, M. Fatehi, "Design support system for khadangestan water transporting tunnel by using experimental and numerical methods and compare them", 7<sup>th</sup> Iranian Students' Conference of Mining Engineering, Sahand university, Tabriz, November 2009
7. M. Najafi, A. R. Yarahmadibafghi, **R. Rafeei**, "Slope Stability analysis of Tailing dam Esphordi Phosphat Mine", 1<sup>th</sup> national mine convention. 25-27 February 2007
8. **R. Rafiee**, M. Ataei, R. Khaloo Kakaie, "Assessment of influence parameters on cavability of rock mass in block caving mines" ICME2013-Zanjan, Iran, 16-21 September 2013
9. **R. Rafiee**, A. Ramezanzadeh, F. Sereshki, S.M.E. Jalali, E. Movahedinezhad, "Estimation of ground water flow into the koohrang tunnel using numerical and analytical method and comparison between them", 10<sup>th</sup> Iranian Tunneling Conference, Tehran, Iran, 2013
10. **R. Rafiee**, M. Ataei, A. Amini, H. Abedian, "Evaluation and ranking of risk in tunneling using fuzzy analytic hierarchy process (FAHP)", 10<sup>th</sup> Iranian Tunneling Conference, Tehran, Iran, 2013
11. M. Najafi, S.M.E. Jalali, **R. Rafiee**, "Evaluation the Effect of Geology Structure on Post-Peak of Coal Pillar Strength", 1<sup>st</sup> Iranian Coal Congress, Shahrood, Semnan, Iran, 2012
12. M. Najafi, **R. Rafiee**, "Collapse Prevention approaches in Room and Pillar Mines" 1<sup>st</sup> Iranian Coal Congress, Shahrood, Semnan, Iran, 2012
13. **R. Rafiee**, M. Ataei, R. Khaloo Kakaie, Assessment of rock behavior around underground space using a rock engineering system, National Conference of Geology and Exploration of Resources, Shiraz, 2014
14. E. Tajvidi, M. Hayaty, **R. Rafiee**, M. Ataei, M. Jalali, Aggregated Ranking of SAW, TOPSIS and LA methods for Selection of Tunnel Support System, 5<sup>th</sup> Mining Conference, 2014, Tehran
15. **R. Rafiee**, A. Ajam, A New software to predict the penetration rate of tunnel boring machine (TMB), International Conference on Geotechnical Engineering and Soil Mechanics, 15-17 November, 2016, Tehran
16. M. Alidokht, M. Najafi, **R. Rafiee**, Problems related to water inrush into the longwall stope and executive solutions to deal with it, 3<sup>th</sup> International Iranian Coal Congress, 30 August 2016, Shahrood
17. M. A. Ghasvareh, **R. Rafiee**, R. Chambari, M. Noroozi, The suitable loading equipment selection using TOPSIS method for Tabas coal mine, 3<sup>th</sup> International Iranian Coal Congress, 30 August 2016, Shahrood
18. M. A. Ghasvareh, **R. Rafiee**, M. Ghasvareh, Selection suitable support system for Beheshtabad tunnel using TOPSIS method, International conference on researches in science and engineering, 28 July 2016, Istanbul University
19. A. S. Gerani, SH. Zare, M. Ataei, **R. Rafiee**, Ranking of geotechnical and geological factors affecting the choice of TBM, 1<sup>st</sup> National Conference of Modeling in Mining Engineering, 2017, Ghazvin
20. E. Ahmadi, M. Noroozi, **R. Rafiee**, Stability Analysis and Estimation of Stress Concentration at Tunnel and Shaft intersection, 12<sup>th</sup> Iranian and 3<sup>th</sup> Regional Tunneling Conference, 2017, Tehran

## 9) COMPUTER SKILLS:

### General software

1. **Microsoft Office Full Pack (MS Word, MS Excel, MS Power Point)**
2. **Drawing: AutoCAD**
3. **Statistical: Crystal Ball, @Risk**
4. **MCDM: Super Decision**

### Mining & rock mechanic software

1. **Rock Mechanics: FLAC2D&3D, Roclab, Slide, Phases2, UDEC, PFC3D**

**10) INTERESTED RESEARCH AREAS AND SUBJECTS:**

1. *Underground construction, especially in Block Caving mines*
2. *Probabilistic modeling*
3. *Decision making models*
4. *Optimization*
5. *Fuzzy system and their applications*
6. *Tunneling*