

CURRICULUM VITAE



Abbas Aghajani Bazzazi

Assistant Prof. in Mining Engineering University of Kashan

Date of birth: 26 Oct 1980

Gender: Male

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B. EDUCATION

- **Ph.D.** Mining Engineering, February 2006- February 2011
Open pit mine equipment selection by minimizing costs with regard to reliability assessment and production rate uncertainty
Department of Mining and Metallurgy Engineering
Amirkabir University of Technology
Tehran, Islamic republic of Iran
- **M.S.** Mining Engineering, October 2003- October 2005
Application of controlled blasting (pre-splitting) by large diameter holes in sarcheshmeh copper mine
Department of Mining and Metallurgy Engineering
Shahid Bahonar University
Kerman, Islamic republic of Iran
- **B.S.** Mining Engineering, October 1998- June 2003
Department of Mining and Metallurgy Engineering
Amirkabir University of Technology
Tehran, Islamic republic of Iran

C. ACADEMIC EXPERIENCE

- January 2006 ~ 2014 Assistant Professor
Dept. of Mining Engineering
Islamic Azad University, Savadkooh branch
Mazandaran, Islamic republic of Iran
- January 2014 ~ Present Assistant Professor
Dept. of Mining Engineering
Kashan University
Kashan, Islamic republic of Iran
- January 2015 ~ 2018 Visiting Assistant Professor
Dept. of Mining Engineering
Islamic Azad University, Science and Research Branch
Tehran, Islamic republic of Iran

D. MAJOR RESEARCH INTERESTS

- Drilling & blasting design and optimization (penetration rate, fragmentation, over break, fly rock, etc)
- Artificial intelligence, decision support system, and expert systems for mining engineering applications
- Environmental and resources economics
- Application of fuzzy group multiple attribute decision making (FGMADM)- meta heuristic optimization- linear and non-linear optimization methods in mining engineering

E. PROFESSIONAL AFFAIRS

(a) Reviewer for Academic Journals (6 journals in total)

- European Journal of Operational Research, ISSN 0377-22, Elsevier
- Environmental Monitoring and Assessment, ISSN 0167-6369, Springer
- Asia-pacific journal of operation research, ISSN: 0217-5959, World scientific
- Waste Management, ISSN: 0956-053X, Elsevier
- Environmental Engineering and Management Journal, ISSN: 1582-9596
- Environment earth science, ISSN: 1866-6280, Springer

F. COMPUTER SKILLS

- Artificial Intelligence and Soft Computing: fuzzy sets theory, neural networks, genetic programming, genetic algorithms
- Mining engineering software: Data Mine, Surpac, NPV Scheduler, Gold Size, FLAC, Phase2, Roclab, Dips
- Other software: MATLAB (Optimization Toolbox), Expert Choice, AUTO CAD, Adobe Photoshop, Microsoft Office

M. PUBLICATION (2006-present)

(A) Journal Papers in Review, Revision, and Preparation (Total = 0)

(B) In press papers (Total = 0)

(C) Published paper (Total = 25)

1. **Aghajani Bazzazi, A.**, Osanloo, M. and Soltanmohammadi, H., 2008. Loading-haulage equipment selection in open pit mines based on fuzzy-TOPSIS method. *Gospodarka Surowcami Mineralnymi*, 24 (4/3), pp.87-102.
2. Soltanmohammadi, H., Osanloo, M., Rezaei, B.A.H.R.A.M. and **Aghajani Bazzazi, A.**, 2008. Achieving to some outranking relationships between post mining land uses through mined land suitability analysis. *International Journal of Environmental Science & Technology*, 5(4), pp.535-546.
3. **Aghajani Bazzazi, A.**, Osanloo, M. and Karimi, B., 2009. Optimal open pit mining equipment selection using fuzzy multiple attribute decision making approach. *Archives of Mining Sciences*, 54(2), pp.301-320.
4. Soltanmohammadi, H., Osanloo, M. and **Aghajani Bazzazi, A.**, 2009. Deriving preference order of post-mining land-uses through MLSA framework: application of an outranking technique. *Environmental geology*, 58(4), pp.877-888.
5. Soltanmohammadi, H., Osanloo, M. and **Aghajani Bazzazi, A.**, 2010. An analytical approach with a reliable logic and a ranking policy for post-mining land-use determination. *Land Use Policy*, 27(2), pp.364-372.
6. Golestanifar, M. and **Aghajani Bazzazi, A.**, 2010. TISS: a decision framework for tailing impoundment site selection. *Environmental Earth Sciences*, 61(7), pp.1505-1513.
7. Azimi, Y., Osanloo, M., Aakbarpour-Shirazi, M. and **Aghajani Bazzazi, A.**, 2010. Prediction of the blastability designation of rock masses using fuzzy sets. *International Journal of Rock Mechanics and Mining Sciences*, 47(7), pp.1126-1140.
8. **Aghajani Bazzazi, A.**, Osanloo, M. and Karimi, B., 2011. Deriving preference order of open pit mines equipment through MADM methods: Application of modified VIKOR method. *Expert Systems with Applications*, 38(3), pp.2550-2556.
9. **Aghajani Bazzazi, A.**, Osanloo, M. and Karimi, B., 2011. A new fuzzy multi criteria decision making model for open pit mines equipment selection. *Asia-Pacific Journal of Operational Research*, 28(03), pp.279-300.
10. Esmaeili, M., **Aghajani Bazzazi, A.**, and Borna, S., 2011. Reliability analysis of a fleet of loaders in Sangan iron mine. *Archives of mining sciences*, 56(4), pp.629-640.
11. Nazari, A., Salarirad, M.M. and **Aghajani Bazzazi, A.**, 2012. Landfill site selection by decision-making tools based on fuzzy multi-attribute decision-making method. *Environmental Earth Sciences*, 65(6), pp.1631-1642.
12. **Aghajani Bazzazi, A.**, and Esmaeili, M., 2012. Prediction of backbreak in open pit blasting by adaptive neuro-fuzzy inference system. *Archives of Mining Sciences*, 57(4).
13. Enayatollahi, I., **Aghajani Bazzazi, A.**, and Asadi, A., 2014. Comparison between neural networks and multiple regression analysis to predict rock fragmentation in open-pit mines. *Rock mechanics and rock Engineering*, 47(2), pp.799-807.
14. Esmaeili, M., Osanloo, M., Rashidinejad, F., **Aghajani Bazzazi, A.**, and Taji, M., 2014. Multiple regression, ANN and ANFIS models for prediction of backbreak in the open pit blasting. *Engineering with computers*, 30(4), pp.549-558.
15. Esmaeili, M., Salimi, A., Drebenstedt, C., Abbaszadeh, M. and **Aghajani Bazzazi, A.**, 2015. Application of PCA, SVR, and ANFIS for modeling of rock fragmentation. *Arabian Journal of Geosciences*, 8(9), pp.6881-6893.
16. Alizadeh, S., Rad, M.M.S. and **Aghajani Bazzazi, A.**, 2016. Alunite processing method selection using the AHP and TOPSIS approaches under fuzzy environment. *International Journal of Mining Science and Technology*, 26(6), pp.1017-1023.
17. Khedrigaribvand, H., Azadi, H., Bahrami, H., Tesfamariam, Z., **Aghajani Bazzazi, A.**, De Maeyer, P. and Witlox, F., 2018. Sustainable rangeland management in southwest Iran: application of the AHP-TOPSIS approach in ranking livelihood alternatives. *The Rangeland Journal*, 40(6), pp.603-614.

18. Ahmadi, M.R. and **Aghajani Bazzazi, A.**, 2019. Cutoff grades optimization in open pit mines using meta-heuristic algorithms. *Resources Policy*, 60, pp.72-82.
19. Bakhshandeh Amnieh, H., Hakimiyani Bidgoli, M., Mokhtari, H. and **Aghajani Bazzazi, A.**, 2019. Application of simulated annealing for optimization of blasting costs due to air overpressure constraints in open-pit mines. *Journal of Mining and Environment*, 10(4), pp.903-916.
20. Bastami, R., **Aghajani Bazzazi, A.**, Hamidian Shoormasti, H. and Ahangari, K., 2020. Prediction of blasting cost in limestone mines using gene expression programming model and artificial neural networks. *Journal of Mining and Environment*, 11(1), pp.281-300.
21. Bastami, R., **Aghajani Bazzazi, A.**, Shoormasti, H.H. and Ahangari, K., 2020. Predicting and minimizing the blasting cost in limestone mines using a combination of gene expression programming and particle swarm optimization. *Archives of Mining Sciences*, pp.835-850.
22. Ahmadi, M.R. and **Aghajani Bazzazi, A.**, 2020. Application of meta-heuristic optimization algorithm to determine the optimal cutoff grade of open pit mines. *Arabian Journal of Geosciences*, 13(5), pp.1-12.
23. Tolouei, K., Moosavi, E., Bangian Tabrizi, A.H., Afzal, P. and **Aghajani Bazzazi, A.**, 2020. A comprehensive study of several meta-heuristic algorithms for open-pit mine production scheduling problem considering grade uncertainty. *Journal of Mining and Environment*, 11(3), pp.721-736.
24. Tolouei, K., Moosavi, E., Tabrizi, A.H.B., Afzal, P. and **Aghajani Bazzazi, A.**, 2020. Improving performance of open-pit mine production scheduling problem under grade uncertainty by hybrid algorithms. *Journal of Central South University*, 27(9), pp.2479-2493.
25. Tolouei, K., Moosavi, E., Tabrizi, A.H.B., Afzal, P. and **Aghajani Bazzazi, A.**, 2021. An optimisation approach for uncertainty-based long-term production scheduling in open-pit mines using meta-heuristic algorithms. *International Journal of Mining, Reclamation and Environment*, 35(2), pp.115-140.

(D) Conference Papers and Presentations (Total = 20)

1. A.Aghajani Bazzazi, H.mansouri, M.A.Ebrahimi, A. AtashPanjeh, Application of controlled blasting (Pre-Splitting) using large diameter hole in Sarcheshmeh copper mine, *Frag Blast* 8, Chile, 2006.
2. M. Osanloo, A. Hekmat, A. Aghajani Bazzazi, Reclamation of Granite Stone Quarry – A Case Study in Jostan Granite Mine, Tehran, Iran, first mine closure conference, Australia, 2006.
3. A.Aghajani, M.Osanloo, M. Akbarpour, Optimizing loading system of Gol-e-Gohar iron ore mine of Iran by genetic algorithm, Iron ore conference, Australia, 2007.
4. A.Aghajani, M.Osanloo, Application of AHP-TOPSIS Method for Loading-Haulage Equipment Selection in Open pit Mines, XXVII International Mining Convention, Mexico, 2007.
5. M.Golestanifar, A.Aghajani Bazzazi, S.Behzadnia. Application and design of constructed wetlands in passive treatment of acid mine drainage, 1st. Int. Conference on managing the social and environmental consequence of coal mining, India, 2007.
6. H.Soltanmohammadi, M.Osanloo, A.Aghajani Bazzazi. Developing a Fifty-Attribute Framework for Mined Land Suitability Analysis Using AHP-TOPSIS Approach, *Post-Mining* 2008, France, 2008.
7. A.Aghajani Bazzazi, M.Osanloo, H.Soltanmohammadi. Loading-haulage equipment selection in open pit mines based on fuzzy-TOPSIS method, 21 world mining congress & expo, Poland, 2008.
8. A.Aghajani Bazzazi, M.Osanloo, Y.Azimi, An empirical formula for fly rock prediction in Esfordi Phosphate Mine of Iran, 21 world mining congress & expo, Poland, 2008.
9. M. Golestanifar, S. Behzadnia, A. Aghajani Bazzazi, InSitu Biotreatment of Coal Spoil Heap Drainage with Permeable Reactive Barriers (PRBs), 21 world mining congress & expo, Poland, 2008.

10. A.Aghajani Bazzazi, M.Osanloo, B.Karimi, Optimal open pit mining equipment selection using fuzzy multiple attribute decision making approach, 17 international symposium on Mine Planning and Equipment Selection (MPES), China, 2008.
11. A.Aghajani Bazzazi, M.Osanloo,B, karimi, Selecting the Suitable Loading-Haulage Equipment in Open Pit Mines by Fuzzy AHP method, 21st international mining congress and exhibition of turkey, Turkey,2009.
12. M.Golestanifar, A.Aghajani Bazzazi, Tailing Impoundment Site Selection (TISS) by Fuzzy Group Multi- Attribute Decision Making, 21st international mining congress and exhibition of turkey, Turkey, 2009.
13. A.Aghajani Bazzazi, M.Osanloo,B, karimi, Overburden removal equipment selection through MADM methods: application of modified VIKOR method, 18 international symposium on Mine Planning and Equipment Selection (MPES), Canada, 2009.
14. A.Aghajani Bazzazi, M.Osanloo, Y.Azimi, Fly rock prediction by multiple regression analysis in Esfordi phosphate mine of Iran, Fragblast 9, Spain, 2009.
15. I. Enayatollahi, A.Aghajani Bazzazi, Evaluations of salt-ANFO mixture in back break reduction by data envelopment analysis, Fragblast 9, Spain, 2009.
16. Y.Azimi, M.Osanloo, M. Akbarpour, A.Aghajani Bazzazi, An application of fuzzy sets to the blastability assessment of rock mass, Fragblast 9, Spain, 2009.
17. A.Aghajani Bazzazi, M.Osanloo,B, karimi, A Non-Linear Programming Model for Open Pit Mine Equipment Selection, 19 international symposium on Mine Planning and Equipment Selection (MPES), Australia, 2010.
18. A.Aghajani Bazzazi, M.Golestanifar, S.Behzadnia. Prediction of Copper Ion Biosorption with Sargassum and Padina .sps Brown Algae by Multiple-Regression Analysis, international mining congress & expo, Iran, 2010
19. A. Rajabi Khangahi, A.Aghajani Bazzazi. Geostatistical evaluation of coal extraction stopes by ash tolerance reduction in central Alborz coal mines of Iran, 22 world mining & Expo, Turkey, 2011.
20. A.Aghajani Bazzazi, I. Enayatollahi. Development of Models to Predict Rock Fragmentation in Open Pit Mines by Statistical Analysis, International Conference on Geology, Geotechnology and Mineral Resources of Indochina (GEOINDO 2011), Thailand, 2011.

(E) SPONSORED AND PENDING RESEARCH PROJECTS

1. Study of Effective Parameter in Copper ion Biosorption with Sargassum .sp and Padina .sp Brown Algae, Islamic Azad University, Savadkooh branch, funding, 2010, (100% effort).
2. Prediction of back break in open pit blasting by adaptive Neuro-fuzzy inference system, Islamic Azad University, Savadkooh branch, funding, 2012, (100% effort).