

Moein Bahadori

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PROFILE

Date of Birth: the 23rd of July 1987, Ilam, Iran

Marital Status: Married

Current Possession: Assistant Professor

Nationality: Iran

Country of Residence: Iran

Language: Persian, English, Kurdish

EDUCATION

Sep. 2012 – Feb. 2017 PhD in Mining Engineering, University of Kashan, Isfahan, Iran.

Thesis Title: Numerical analysis of Rock Fragmentation and the Blast-Induced Ground Vibrations in Open-Pit Mines.

Supervisor: Dr. Hassan Bakhshandeh Amnieh

Thesis grade: 'Excellent'.

Sep. 2009 – Sep. 2011 M. Sc. in Mining Engineering, University of Kashan, Isfahan, Iran.

Thesis Title: Numerical Analysis of Blasting Wave Propagation in the Vicinity of Two Blast Holes

Supervisor: Dr. Hassan Bakhshandeh Amnieh

Thesis grade: 'Excellent'.

Sep. 2005 – Sep. 2009 B. Sc. in Mining Engineering, Yazd University
Thesis Title: Design the Pushbacks Considering the Grade Uncertainty in Chadormalu Iron Ore mine
Supervisor: Dr. Javad Gholamnezhad
Thesis grade: ‘Excellent’.

ACADEMIC EXPERIENCE

Jun. 2017 – present	Assistant Professor, University of Gonabad	* Rock Mechanics and laboratory * Drilling and Blasting in Rocks * Ventilating in Mines * Surface Mining Methods * Ground Control and Supporting systems * Technical Services in Mining * Mine Mapping and Operations * Mine Design * Statics * Mechanic of Material * Flotation * Computer Programming (C language)
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WORK EXPERIENCES

Oct. 2018 – present	Advisor to the vice-chancellor of Gonabad University
Jul. 2013 – Jun. 2015	Founder and Chairman of the Board of Directors of Padra Madan Company
Jul. 2010 – Jul. 2013	Technical manager of sand mines
Jul. 2009 – Jul. 2010	Director of the affairs of the members of the Mining Engineering Organization of Ilam province

RESEARCH PROJECTS

Sep. 2013 – Feb. 2014	Reviewing and comparison of all types of blasting circuits, with a special look at NONEL system
Sep. 2014 – Mar. 2016	Determining the optimal delay time in different blasting patterns in Gol-e-Gohar Sirjan Iron Mine
Feb. 2015 – Feb. 2016	Numerical Analysis of Rock Fragmentation and the Blast-induced Ground Vibrations in Midouk Copper Mine
Sep. 2016 - Jan. 2017	Zoning of Midouk Copper Mine based on Fragmentation capability due to Blasting Operations and its Effect on Milling Efficiency
Oct. 2021- Apr. 2022	Modifying the Blasting Pattern to Reduce the Risks of Blast-Induced Ground Vibrations

Dec. 2021 – Feb. 2022	Investigation and Feasibility of using the Modern Technologies in the Drilling and Blasting Operations of Gol-e-Gohar Sirjan Iron Mine
May. 2022 - Jun. 2022	Investigation and Feasibility of using the Modern Technologies in Mapping Operation of Gol-e-Gohar Sirjan Iron Mine
Feb 2023 – Feb 2024	Investigation and feasibility of using drones in assessing fragmentation resulting from explosions using image processing in Sepid Company's mining complex
Jan 2023 – Mar 2024	Investigation of subsurface structures using (IP-RS) methods from data collection to final interpretation
May 2025 – Jan 2026	Optimal extraction design of kaolin mine of Sepid Faravaran Shargh Company based on integration of topographic exploration data and tailings extraction ratio analysis

SOFTWARE INTERESTS & SKILLS

- UDEC
- SURPAC
- Rocscience
- Matlab
- AutoCAD

HONORS & AWARDS

- Distinguished researcher (Faculty members) of University of Gonabad, 2022.
- Admission to the doctoral course from the quota of brilliant talents, Sep. 2012.
- Distinguished researcher of University of Kashan, 2011

PROFESSIONAL ACTIVITIES

Oct. 2021 – present	Member of Iranian Society of mining engineering, Iran
Jan. 2010 – present	Member of Iranian mining engineering organization, Iran

JOURNAL REVIEWER

- International Journal of Rock Mechanics and Mining Sciences
- Engineering Geology
- Rock Mechanics and Rock Engineering
- Geotechnical and Geological Engineering
- International Journal of Geomechanics

- International Journal of Mining Science and Technology
- Mining, Metallurgy & Exploration
- Scientific Reports
- Journal of Mining and Environment Journal of Analytical and Numerical Methods in Mining Engineering (ANM) – Yazd University – Iran
- Sustainability
- Journal of Research on Archaeometry

PUBLICATIONS

Journal Articles:

1. **M. Bahadori**, V. Mahmoodi, R. Shirani Faradonbeh, S.A. Almasi, R. Bastami, "Effect of Ejected Particle Shape and Geometry on the Projectile Behavior of Flyrock: A Stochastic Analysis". Bulltein of Engineering Geology and the Environment. Accept for Publication.
2. R. Shirani Faradonbeh, M.I. Shah, **M. Bahadori**, H. Jang, "Toward Sustainable Mining: Exploring Alternative Mineral Resources and Innovative Extraction Techniques" Mining 2025, 5, 66. <https://doi.org/10.3390/mining5040066>.
3. **M. Bahadori**, M. Bemani, I. Atighi, and M. Amiri Hosseini. "Optimization of Trench Dimensions to Reduce Blast-Induced Ground Vibration in Gol-Gohar Sirjan Mine Using Numerical Modeling" Journal of Analytical and Numerical Methods in Mining Engineering (ANM), Vol. 14 No. 39, pp. 47-58, 2024.
4. **M. Bahadori**, E Khorasani, "Stability analysis and proposing supporting system of Water Diversion Tunnels of Zanzan Moshamapa Dam using Numerical, Empirical, and Convergence-Confinement methods" Tunneling and Underground Space Engineering (TUSE), Vol. 11 No. 2, pp. 217-231, 2023.
5. X. Ding, **M. Bahadori**, M. Hasanipناه, and R. A. Abdullah, "Predicting the Rock Fragmentation in Surface Mines Using Optimized Radial Basis Function and Cascaded Forward Neural Network Models" Geomechanics and Engineering, An International Journal Vol. 33 No.6., 2023.
6. **M. Bahadori** and S. M. Mousavi, "Investigation of the Effects of Rock Dynamic Hardness on the Energy Consumption in the Crushing unit, case study: Midouk Copper Mine" Applied Earth Science, pp. 1-13, 2022.
7. **M. Bahadori** and H. Bakhshandeh Amnieh, "Numerical Analysis of the Pile Movement due to Rock Blasting in Open Pit Mines" (in en), Journal of Mineral Resources Engineering, 2022.
8. **M. Bahadori**, "Designing the Surface and Underground Blasting Operations to Avoid Damage to Concrete Structures in Gotvand Olya Dam Using Genetic Algorithm" Geotechnical and Geological Engineering, 2022.
9. **M. Bahadori**, P. Beiranvand, and H. Bakhshandeh Amnieh, "Optimization of Sardasht Dam Sealing System Using UDEC Software", Journal of Analytical and Numerical Methods in Mining Engineering, vol. 11, no. 26, pp. 23-34, 2021.
10. M. Namvar-Mahboub, E. Khodeir, **M. Bahadori**, and S. M. Mahdizadeh, "Preparation of magnetic MgO/Fe₃O₄ via the green method for competitive removal of Pb and Cd from aqueous solution" Colloids Surfaces A: Physicochemical Engineering Aspects, vol. 589, p. 124419, 2020.
11. **M. Bahadori** and H. Bakhshandeh Amnieh, "Implementation of hyperbolic tangent function to estimate size distribution of rock fragmentation by blasting in open pit

- mines" International Journal of Mining and Geo-Engineering, vol. 52, no. 2, pp. 187-197, 2018.
12. H. Mokhtari, **M. Bahadori**, and J. Gholamnezhad, "Designing of push backs in Chadormalu Iron Mine considering the Grade Uncertainty" Journal of Modeling in Engineering, vol. 14, no. 47, pp. 229-241, 2017.
 13. F. S. Hoseinian, **M. Bahadori**, M. Hashemzadeh, B. Rezai, and S. Soltani-Mohammadi, "Application of Mathematical Modeling on Copper Recovery Optimization of Oxide Ores" JOM, vol. 69, no. 10, pp. 1939-1944, 2017.
 14. H. Bakhshandeh Amnieh and **M. Bahadori**, "Numerical Analysis of the Primer Location Effect on Ground Vibration Caused by Blasting" International Journal of Mining and Geo-Engineering, vol. 51, no. 1, pp. 53-62, 2017.
 15. **M. Bahadori**, H. Bakhshandeh Amnieh, and A. Khajezadeh, "A new geometrical-statistical algorithm for predicting two-dimensional distribution of rock fragments caused by blasting" International Journal of Rock Mechanics and Mining Sciences, vol. 86, pp. 55-64, 2016.
 16. H. Bakhshandeh Amnieh and **M. Bahadori**, "Safe Vibrations of Spilling Basin Explosions at Gotvand Olya Dam, Using Artificial Neural Network" Archives of Mining Sciences, vol. 59, pp. 1087-1096, 2014.
 17. H. Bakhshandeh and **M. Bahadori**, "Numerical and Field Analysis of Wave Propagation and Cracks Caused by Presplit Blasting in Conglomerate Rock-mass at Gotvand Olya Dam" Iranian Journal of Geophysics, vol. 7, no. 3, pp. 49-65, 2013.
 18. S. Soltani-Mohammadi, H. Bakhshandeh Amnieh, and **M. Bahadori**, "Investigating ground vibration to calculate the permissible charge weight for blasting operations of Gotvand-Olya dam underground structures" Archives of Mining Sciences, vol. 57, no. 3, pp. 687-697, 2012.
 19. H. Bakhshandeh Amnieh and **M. Bahadori**, "Numerical and Field Analysis of Single-hole Blasting Mechanism in Conglomerate Rock-mass of Gotvand Olya Dam" Energy Engineering Management, vol. 2, no. 1, pp. 22-31, 2012.
 20. H. Bakhshandeh Amnieh and **M. Bahadori**, "Numerical Analysis of the Effects of Single Blast-hole in Mudstone Rock-mass at Gotvand Olya Dam" Iranian Journal of Geophysics, vol. 6, no. 2, pp. 56-72, 2012.
 21. S. Soltani-Mohammadi, H. Bakhshandeh Amnieh, and **M. Bahadori**, "Predicting ground vibration caused by blasting operations in Sarcheshmeh copper mine considering the charge type by Adaptive Neuro-Fuzzy Inference System (ANFIS)" Archives of Mining Sciences, vol. 56, no. 4, pp. 701-710, 2011.
 22. H. Bakhshandeh Amnieh and **M. Bahadori**, "Investigating the Influence of Blasting Operations at the Surge Tanks and Storage Facilities on the Underground Structures of Gotvand Olya Dam" Iranian Journal of Geophysics, vol. 5, no. 2, pp. 51-60, 2011.

Conference Articles:

1. S. T. Mousavi Pour Taghi Zadeh, A. Najafabadipour, **M. Bahadori**, M. M. Rajizadeh, "Phosphorus Content Estimation in Iron Ore Mine Using Advanced Neural Networks" NSG 2024 5th Conference on Geophysics for Mineral Exploration and Mining, European Association of Geoscientists & Engineers, Helsinki, Finland, September 8-12, 2024.
2. **M. Bahadori**, "Zoning of Midouk Copper Mine and Determining the Relationship between the Energy Consumption in the Milling unit and the dynamic Hardness of the rock mass" The 10th Iranian Mining Engineering Conference, Zahedan, University of Sistan and Baluchestan, 22 & 23 Feb. 2022.
3. **M. Bahadori**, "Prediction of Results of Blasting Operations of Gotvand Olya Dam, using NIOSH Relationships" The 10th Iranian Mining Engineering Conference, Zahedan, University of Sistan and Baluchestan, 22 & 23 Feb. 2022.
4. **M. Bahadori** and M. Amiri, "Field Analysis of the Effect of the Inter-hole Delay Times on the Rock Fragmentation by Blasting, Case study: Gol-e-Gohar Sirjan iron Mine" The 10th Iranian Mining Engineering Conference, Zahedan, University of Sistan and Baluchestan, 22 & 23 Feb. 2022.
5. **M. Bahadori** and E. Tadayon, "Investigation of the Effect of Substitution of Petroleum Derivatives Instead of Gasoline on ANFO" presented at the The 1st National Conference on Applied Chemistry & Nanochemistry; from Research to technology University of Gonabad, Razavi Khorasan, I.R.Iran, 2018.
6. **M. Bahadori**, H. Bakhshandeh Amnieh, P. Beiranvand, and S. M. Mousavi, "Selection of Appropriate Empirical function in the Estimation of Rock Fragmentation by Blasting in Miduk Copper Mine" presented at the 6th Iranian Rock Mechanics Conference (IRMC6), Tehran, I.R.Iran, 2017.
7. **M. Bahadori**, A. H. Mazandarani, H. Bakhshandeh Amnieh, and M. Sarallahi, "Investigation and Comparison of Hazardous Gases Control Methods in Underground Spaces of Zagros Region" The 4th National Conference on Industrial Ventilation and Health, Sharif University of Technology, I.R.Iran, 2014.
8. **M. Bahadori**, H. Bakhshandeh Amnieh, and M. Aliakbari, "Numerical and field analysis of crack propagation velocity in the conglomerate rock mass of Gotvand Olya Dam" presented at the The 1st National Conference on Soil Mechanics and Engineering, Faculty of Civil Engineering, Shahid Rajaee Teacher Training University, Tehran, I.R.Iran, 2014.
9. **M. Bahadori** and H. Bakhshandeh Amnieh, "Investigation of the Effect of Rows Number on Ground Vibration Caused by Blasting Operation in the Sarcheshmeh Copper Mine" The 16th Iranian National Conference, University of Tehran, I.R.Iran, 2014.
10. P. Beiranvand, H. Bakhshandeh Amnieh, M. Rahimi Dizaji, and **M. Bahadori**, "Numerical Analysis of Leakage Control of Sardasht Dam Using UDEC Software" presented at the The 1st Iranian Geotechnical Engineering Conference, University of Mohaghegh Ardabili, Ardabil, I.R.Iran, 2013.

11. **M. Bahadori** and H. Bakhshandeh Amnieh, "[Numerical Analysis of Convergence Rate of Ilam-Hamil 3rd Tunnel](#)" presented at the The 7th National Congress of Civil Engineering, Shahid Nikbakht School of Engineering, Zahedan, I.R.Iran, 2013.
12. **M. Bahadori** and H. Bakhshandeh Amnieh, "[Numerical Analysis of the Impact of Decoupling on the Crack Propagation in Watery and Dry Blast holes](#)" presented at the The 1st Iranian Mining Technologies Conference-IMT2012, Yazd, I.R. Iran, 2012.
13. H. Bakhshandeh Amnieh, E. Khorasani, **M. Bahadori**, and M. Amini, "[Stability analysis of the diversion tunnels at Moshampa dam in Zanjan using discrete element method](#)" The 1st Asian and 9th Iranian Tunneling Symposium, Tehran, 2011.
14. **M. Bahadori** and H. Bakhshandeh Amnieh, "[Investigation of the Effect of Charge Type on Ground Vibration Caused by Blasting Operation in Sarcheshmeh Copper Mine](#)" presented at the The 4th Iranian Rock Mechanics Conference (IRMC4), Tehran, 2011.
15. M. Amini, S. Moattari, and **M. Bahadori**, "[Determination of shear parameters between smooth geomembrane liner and synthetic clay layer](#)" The 1st Copper World Congress, Tehran, 2011.
16. **M. Bahadori**, H. Bakhshandeh Amnieh, and S. M. Vahidipour, "[Prediction of Blast-induced vibration in Sarcheshmeh copper mine by GA numerical algorithm](#) " presented at the The 1st conference on Blasting engineering and its importance in Iranian, Tehran, 2010.