

## Mohammad-Javad Rahimdel

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### PERESENT POSITION

Assistant Professor of Mining Engineering

### EDUCATIONS

#### **Ph.D.** Mining Engineering

Sahand University of Technology, Tabriz, Iran, Jan. 2013- Jul. 2017

GPA: 18.14/20

Dissertation: Optimization of the Mining Conditions based on the Imposed Vibrations to Truck Drivers  
Research Scholar: Division of Operation and Maintenance Engineering, Luleå University of Technology, Luleå, Sweden, Jul. 2016- Feb. 2017

#### **M.Sc.** Mining Engineering

Shahrood University of Technology, Shahrood, Iran, Sep. 2010- Sep. 2012

GPA: 18.17/20

Thesis: Reliability Analysis of Drilling Machines at Sarcheshmeh Copper Mine (Iran)

#### **B.Sc.** Mining Engineering

Isfahan University of Technology, Isfahan, Iran, Sep. 2006- Sep. 2010

GPA: 16.76/20

Project: Stability Analysis and Support Design for Beheshtabad Water Conveyance Tunnel (Iran)

### RESEARCH INTERESTS

Human factors and industrial safety  
RAMS; Reliability, Availability, Maintainability and Safety  
Risk analysis  
Soft computing

### RESEARCH PROJECTS

Investment Preferences for the Iran's Mineral Sector (focus on the production productivity)

Role: Leader

Funded by: University of Birjand, Iran

Duration: Dec. 2019- Mar. 2021

Remaining Life Estimation of Rolling Stock

Role: Researcher

Funded by: Luleå Railway Research Center, Sweden

Duration: Aug. 2016- Aug. 2018

Economical Prioritization of the Mining Activities in Western Azerbaijan, Iran

Role: Researcher

Funded by: Azarpad Urmia Consulting and Urmia University, Iran

Duration: Dec. 2015- Mar. 2016

Research on the Problems and Challenges of Iran's Mines

Role: Leader

Funded by: Iran's Geological Survey and National Elites Foundation

Duration: Nov. 2014- Sep. 2015

Reliability Analysis of the Drilling Machines at Sarcheshmeh Copper Mine, Iran

Role: Leader

Funded by: National Iranian Copper Industries Company

Duration: Feb. 2012- Feb. 2013

## SELECTED AWARDS AND HONORS

Top Graduated Student (Ph.D level), Iran's National Elites Foundation	2020
Ranked 1 <sup>st</sup> in Graduated Ph.D. Student, Sahand University of Technology	2017
Annual Educational Award, Iran's National Elites Foundation	2017
Research Scholarship, Ministry of Science, Research and Technology of Iran	2016
Exceptional Talent Student, Sahand University of Technology	2016
Top Young Researcher, the 8 <sup>th</sup> Festival of the Top Young of Eastern Azerbaijan, Iran	2016
Annual Educational Award, Iran's National Elites Foundation	2016
Exceptional Talent Student, Sahand University of Technology	2015
Exceptional Talent Student, Sahand University of Technology	2014
Top Graduated Student in M.E. Level, Iran's National Elites Foundation	2013
Ranked 1 <sup>st</sup> in Graduated M.E. Student, Shahrood University of Technology	2012
Ranked 4 <sup>th</sup> in Graduated B.E. Student, Isfahan University of Technology	2010

## REVIEWING PAPERS FOR SCIENTIFIC JOURNALS

Rudarsko-geološko-naftni zbornik (The Mining-Geological-Petroleum Bulletin)  
International Journal of Mining Science and Engineering (Elsevier)  
Journal of Industrial Engineering International (Springer)  
Journal of Central South University (Springer)  
Journal of Mining and Environment  
Scientific Programming (Hindawi)  
Resource Policy (Elsevier)

## PEER-REVIEWED PAPERS IN SCIENTIFIC JOURNALS

**Rahimdel MJ**, Mirzaei M. *Optimum operational conditions of mining trucks based on the vibrational health risk of the driver*. International Journal of Heavy Vehicle Systems, 2021. 28(2), pp.226-241.

**Rahimdel MJ**, Ghodrati B. *Risk Prioritization for Failure Modes in Mining Railcars*. Sustainability, 2021. 13(11), p.6195.

**Rahimdel MJ**, Ghodrati, B. 2021. *Remaining useful Life Improvement for the Mining Railcars under the Operational Conditions*. International Journal of Mining, Reclamation and Environment, 2021, 1-22.

**Rahimdel MJ**. *Injury Analysis of Iran's Mining Workplaces*. Rudarsko-geološko-naftni zbornik, Mine, Iran). Rudarsko-geološko-naftni zbornik (The Mining-Geological-Petroleum Engineering Bulletin), 2021, 36(1).

**Rahimdel MJ**, Noferesti H, *Investment preferences of Iran's mineral extraction sector with a focus on the productivity of the energy consumption, water and labor force*, Resources Policy, 2020, 67, 101695.

Aryafar, A. **Rahimdel MJ**, Tavakkoli, E. *Selection of the most proper drilling and blasting pattern by using MADM methods (A case study: Sangan Iron Ore Mine, Iran)*. Rudarsko-geološko-naftni zbornik (The Mining-Geological-Petroleum Engineering Bulletin), 2020, 35(3).

**Rahimdel MJ**, Ataei M, Ghodrati B, *Modeling and Simulation Approaches for Reliability Analysis of Drilling Machines*, Journal of The Institution of Engineers (India): Series C, 2020. 101(1), 125-133.

**Rahimdel MJ**, Mirzaei M, *Prioritization of Practical Solutions for the Vibrational Health Risk Reduction of Mining Trucks Using Fuzzy Decision Making*, Archives of Environmental and Occupational Health, 2020, 72(2), 112-125.

**Rahimdel MJ**, Bagherpour R. *Haulage System Selection for Open Pit Mines Using Fuzzy MCDM and the View on Energy Saving*. Neural Computing and Applications, 2018, 29(6), 187-199.

**Rahimdel MJ**, Mirzaei M, Sattarvand J, Mirzaei H, *Analysis and Optimization of Mining Truck Operation based on the Driver Whole Body Vibration*, AUT Journal of Mechanical Engineering, 1(2), 169-178, 2017.

**Rahimdel MJ**, Bagherpour R, *Optimization of the Diamond Wire Cutting Performance in Travertine Quarrying*, Bulletin of Engineering Geology and the Environment, 77(4), 1793–1801, 2018.

**Rahimdel MJ**, Mirzaei M, Sattarvand J, Ghodrati B, Mirzaei Nasirabad H, *Artificial Neural Network to Predict the Health Risk Caused by Whole Body Vibration of Mining Trucks*, Journal of Theoretical and Applied Vibration and Acoustics, 3(1), 1-14, 2017.

**Rahimdel MJ**, Mirzaei M, Sattarvand J, Hoseinie SH, *Health Risk of the Whole Body Vibration in Mining Trucks during Various Operational Conditions*, Journal of Central South University of Technology, 24(8): 1922–1930, 2017.

- Bagherpour R, **Rahimdel MJ**, *Dangerous Condition of Ground during High Overburden Tunneling (A Case Study in Iran)*, Periodica Polytechnica Civil Engineering, 60(1), 11-20, 2016.
- Rahimdel MJ**, Hoseinie SH, Ghodrati B, *RAM Analysis of Rotary Drilling Machines*, Mining Science, 23, 77-89, 2016.
- Rahimdel MJ**, Ataei A, Kakaei R, Hoseinie SH, *Maintenance Plan for a Fleet of Rotary Drill Rigs*, Archive of Mining Science, 59(2), 441-453, 2014.
- Rahimdel MJ**, Karamoozian M, *Fuzzy TOPSIS Method to Primary Crusher Selection for Golegozar Iron Mine (Iran)*, Journal of Central South University, 21, 4352-4359, 2014.
- Rahimdel MJ**, Ataei M, *Application of Analytical Hierarchy Process for Selection of the Primary Crusher*, International Journal of Mining Science and Technology, 24(4), 519-523, 2014.
- Rahimdel MJ**, Ataei M, Khalokakaei R, Hoseinei SH, *Reliability Maintenance-based Scheduling of Hydraulic System of Drilling Machines*, International Journal of Mining Science and Technology, 23(5), 771-775, 2013.
- Rahimdel MJ**, Ataei A, Kakaei R, Hoseinie SH, *Reliability Analysis of Drilling Operation in Open Pit Mines*, Archive of Mining Science, 58(2), 569-578, 2013.
- Rahimdel MJ**, Hoseinie SH, Ataei M, Khalokakaei R, *Reliability and Maintainability Analysis of Pneumatic System of Rotary Drilling Machines*, Journal of the Institution of Engineers (India): Series D, 94(2), 105-111, 2013.
- Rahimdel MJ**, Bagherpour R, *Primary Support Design for Golab Water Conveyance Tunnel Based on the Geological Hazards*, Journal of Geotechnical Geology, 8(4), 334-323, 2013.
- Rahimdel MJ**, Karamoozian M, *Selection of the Proper Primary Crusher Using ELECTRE Method*, Journal of Analytical and Numerical Methods in Mining Engineering, 2(4), 79-87, 2012.
- Bahrami A, Abdollahi sharif J, **Rahimdel MJ**, Zialame A, *Comparative Advantages of Mineral Excavation in Western Azerbaijan*, Journal of Analytical and Numerical Methods in Mining Engineering, 9(18), 2019.
- Noferesti H, Veiskarami A, **Rahimdel MJ**, *Analysis of Landslide Potential Using Numerical Modeling (A Case Study, Afjin-Qaen New Road in Iran)*, Journal of Civil and Environmental Research, 5(1), 97-108, 2019.

#### **SOME PEER-REVIEWED PAPERS IN CONFERENCE PROCEEDING**

- Maleki Tabas, **Rahimdel MJ**, Noferesti S. *Evaluation of the Whole-body Vibration among Mining Truck Drivers*. The 10<sup>th</sup> Iranian Mining Engineering Conference, Zahedan, Iran, 2022.
- Rahimdel MJ**, Aryafar A, Vaziri S. *Safety Risk Analysis in Tabas Coal Mine by using FMEA Method*. The 9<sup>th</sup> Iranian Mining Engineering Conference and 6<sup>th</sup> International Mine & Mining Industries Congress, Shahrood, Iran, 2021.
- Rahimdel MJ**. *Occupational incidents in Iran's coal mines*. the 5<sup>th</sup> National Iranian Coal Congress, Shahrood, Iran, 2020.
- Rahimdel MJ**, Ghodrati B, *Reliability and maintainability analysis of the mining loading machines*, the 8<sup>th</sup> Iranian Conference on Mining Engineering, Birjand, Iran, 2020.
- Rahimdel MJ**, Noferesti H, *Productivity of the energy consumption, water and labor forces of Iran's mines*, the 8<sup>th</sup> Iranian Conference on Mining Engineering, Birjand, Iran, 2020.
- Rahimdel MJ**, Sattarvand J, Mehdi Mirzaei M, *Performance Analysis of the Truck Seat in Reduction of the Whole-Body Vibrations for Drivers*, the 8<sup>th</sup> Iranian Conference on Mining Engineering, Birjand, Iran, 2020.
- Rahimdel MJ**, Ghodrati B, *Prediction of Mining Railcar Remaining Useful Life*, Mine Planning & Equipment Selection- MPES 2019, Curtin, Australia, 2019.
- Ghodrati B, **Rahimdel MJ**, *Fuzzy Risk Prioritization of the Failure Modes in Rolling Stocks*, IEEE International Conference on Industrial Engineering and Engineering Management, IEEM 2018, Bangkok, Thailand, 2018.
- Rahimdel MJ**, Mirzaei M, Ghodrati B, Hoseinie SH, *Whole Body Vibration Assessment of the Mining Truck Drivers; a Case Study*, the 26<sup>th</sup> International Symposium on Mine Planning and Equipment Selection- MPES 2017, Lulea, Sweden, 2017.
- Sattarvand J, **Rahimdel MJ**, Mirzaei M, *Prediction of the Whole-Body Vibration in Mining Truck Driver Seats using Artificial Neural Network*, Society for Mining, Metallurgy, and Exploration- SME 2017, Colorado, 2017.

**Rahimdel MJ**, Mirzaei M, Sattarvand J, Hoseinie SH, *Health Risk Analysis of the Imposed Vibrations to the Mining Trucks*, The 4<sup>th</sup> International Conference of Reliability Engineering, Tabriz, Iran, 2016.

**Rahimdel MJ**, Ataei M, Khalokakaei R, *Reliability Analysis and Maintenance Scheduling of the Electrical System of Rotary Drilling Machines*, Current Trends in Reliability, Availability, Maintainability and Safety, 623-632. (Lecture Notes in Mechanical Engineering), Lulea, Sweden, 2016.

**Rahimdel MJ**, Sattarvand J, Hoseinie SH, Ghodrati B, *Practical Approaches to Reduce the Vibration and Health Risk of Operators in Heavy Mining Trucks*, 3<sup>rd</sup> National Conference of Iran Open Pit Mines, Kerman, Iran, 2015.

**Rahimdel MJ**, Bagherpour R, *Prediction of TBM Penetration Rate of TBM Using NTH Method*, 2<sup>nd</sup> International Congress on Structure, Architecture and Urban Development, Tabriz, Iran, 2014.

**Rahimdel MJ**, *Analytical and Numerical Research on Subsidence of Twin Tunnels*, International Conference on Civil Engineering, Architecture and Urban Sustainable Development, Tabriz, Iran, 2013.

**Rahimdel MJ**, Ataei M, Ghodrati B, Hoseinie SH, *Reliability Modeling of Hydraulic System of Rotary Drilling Machines; A Case Study: Sarcheshmeh Copper Mine in Iran*, The 21<sup>st</sup> International Symposium on Mine Planning & Equipment Selection- MPES, New Delhi, India, 568-576, 2012.

**Rahimdel MJ**, Ataei M, Kalokakei R, Hoseinie SH, *Reliability Analysis of Rotary Drilling Machine*, 1<sup>st</sup> Iranian Mining Technologies Conference, Yazd, Iran, 2012.

**Rahimdel MJ**, Bagherpout R, Mahdevarie S, *Research on Squeezing Potential of Beheshtabad Water Conveyance Tunnel*, 1<sup>st</sup> Iranian Mining Technologies Conference, Yazd, Iran, 2012.

**Rahimdel MJ**, *Design of Primary Support for Sabzkoh Water Conveyance Tunnel*, 16<sup>th</sup> Conference of Iran's Geological Society, Shiraz, Iran, 2012.

**Rahimdel MJ**, *Rock-burst Analysis in Deep Coal Mining*, 1<sup>st</sup> National Coal Congress, Shahrood, Iran, 2012.

**Rahimdel MJ**, Bagherpour R, Mahdevarie S, *Geological Hazards in Golab Tunnel Excavation*, 4<sup>th</sup> Iranian Mining Engineering Conference, Tehran, Iran, 2012.

**Rahimdel MJ**, Karamoozian M, Bagherpour R, *Technology of Mobile and Semi-mobile Crushers in Open Pit Mining*, 1<sup>st</sup> Iranian Mining Technologies Conference, Yazd, Iran, 2012.

**Rahimdel MJ**, Bagherpour R, Mahdevarie S, *Evaluation of Rock-burst Phenomenon and its Control in Sabzkoh Water Conveyance Tunnel*, 1<sup>st</sup> Iranian Mining Technologies Conference, Yazd, Iran, 2012.

**Rahimdel MJ**, Mahdevarie S, Bagherpour R, *Stability Analysis and Design of Support System for Beheshtabad Water Conveyance Tunnel Using VNIMI Method*, 9<sup>th</sup> Iranian and 1<sup>st</sup> Asian Tunneling Conference, Tehran, Iran, 2011.

**Rahimdel MJ**, Bagherpour R, Mahdevarie S, *Engineering Geology and Stability Analysis of Ghazvin-Rasht Railway Tunnel*, 1<sup>st</sup> Iranian Conference on Civil Engineering, Rasht, Iran, 2012.

**Rahimdel MJ**, Sereshki F, *Air Blast Hazards in Drilling of Underground Spaces*, 1<sup>st</sup> Iranian Conference on Civil Engineering, Rasht, Iran, 2012.

**Rahimdel MJ**, Rahmati A, Bagherpour R, Mahdevarie S, *Stability Analysis of Beheshtabad Water Conveyance Tunnel Using Numerical Modeling (A Comparison Study)*, 7<sup>th</sup> Iranian Conference of Engineering Geology, Shahrood, Iran, 2011.

**Rahimdel MJ**, Bagherpour R, Mahdevarie S, *Squeezing Potential in Golab Water Conveyance Tunnel*, 15<sup>th</sup> Conference of Iran's Geological Society, Tehran, Iran, 2011.

**Rahimdel MJ**, Mirzaei H, Mahdevarie S, Bagherpour R, *Evaluation of Rock-burst Potential in Beheshtabad Water Conveyance Tunnel*, 7<sup>th</sup> Iranian Conference of Engineering Geology, Shahrood, Iran, 2011.

**Rahimdel MJ**, Bagherpour R, Mahdevarie S, *Research on Geological Properties of Beheshtabad Dam Deviation Tunnel*, 30<sup>th</sup> Iranian Conference of Geology Science, Tehran, Iran, 2011.

**Rahimdel MJ**, Bagherpour R, Mahdevarie S, *Squeezing Potential in Sabzkoh Water Conveyance Tunnel*, 30<sup>th</sup> Iranian Conference of Geology Science, Tehran, Iran, 2011.

Rahmati A, **Rahimdel MJ**, Bagherpour R, Mahdevarie S, *Stability Analysis and Support System Determination for Beheshtabad Water Conveyance Tunnel Using Numerical Modeling*, 7<sup>th</sup> Iranian Conference of Engineering Geology, Shahrood, Iran, 2011.