#### AHMAD RAMEZANZADEH, PH.D.

Senior Geomechanics Engineer - Undeground Technologies

#### Years of Experience

21 (consultancy+ academic research)

Residence Languages

Iran, Persian, English, French



#### **Education**

- PhD, Rock Mechanics and hard rock TBM tunnelling, INSA of Lyon, France, 2005
- MSc. Rock Mechanics, Tarbiat Modares University, Tehran, Iran, 1997
- BSc Mining Engineering, Shahid Bahonar University, Kerman, Iran, 1994

#### **Professional Affiliations**

- Member of Iranian Petroleum Geomechanics Association
- Member of Iranian Tunnelling Association
- Member of Iranian Rock Mechanics
- Member of Iranian Tunnelling Association
- Member of Solution Mining Research Institute (SMRI), USA
- Member of Engineers Australia
- Member of Australasian Tunnelling Society

#### **Honours and Awards**

- High honour in nationwide (Iran) examination and subsequently awarded an abroad scholarship to pursue postgraduate study in France (2001-2005)
- Financial support from Herrenknecht AG to perform research on hard rock TBM performance
- Visiting Norwegian University of Science and technology (NTNU), Norway, as a research scholar for a total period of 6 months (spring 2003 and 2004) to explore their extensive TBM/rock mass data base
- Chairman of the first Iranian virtual conference on underground storage of hydrocarbons, 2011
- Chairman of the first national conference on Petroleum Geomechanics, 2015
- Chairman of the second national conference on Petroleum Goemechanics 2017

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## Fields of expertise

- Mechanical rock cutting, drilling
- Petroleum Geomechanics (wellbore stability and hydraulic fracturing)
- Geomechanical modelling (1D and 3D) in hydrocarbon reservoirs
- Experimental and numerical studies of mechanical rock fragmentation process
- Design underground spaces in hard and soft formations includes
  - Hard rock and salt cavern spaces for storage crude oil, oil-productions and natural gas
  - o Underground power plant spaces
  - o Water supply tunnels
  - Subway tunnels

#### **Current involvements**

- President and Head of the board of the Iranian Petroleum Geomechanics Association since 2012
- Co-Founder of Iranian Petroleum Geomechanics Association (2012)
- Managing director and member of the board, MASNA Engineering co. since 2012
- Director in chief and member of editorial boards, scientific journal of Tunnelling & Underground Space Engineering (2012)
- Associate editor and member of editorial boards, scientific journal of Petroleum Geomechanics, since January 2017
- Assistant professor in Mining, Petroleum and geophysics faculty, Shahrood University of Technology, Shahrood, since 2008.

## **Research projects**

- Experimental laboratory testing program for several oil and gas wells in south of Iran, 2013-2016
- Basic design for crude oil storage in unlined rock caverns in south of Iran, Project Technical manager, National Iranian Oil Company, 2012.
- Feasibility study and conceptual design of first high pressure natural gas storage using lined rock cavern technology in North-West of Iran, Project manager, Natural Gas Storage Company
- Design and construction of multi-purposes triaxial creep test apparatus, Iran, 2012.
- Guidelines for tunnelling in difficult ground condition, Iran, 2012.
- Iran's Tunnel Data base, Project manager, IranianTunneling Association, Iran, 2009.
- Oscillating Disc cutter, emerging rock cutting technology, Project manager, CRC Mining, Australia, 2008.
- Rapid Underground Mines Development, Project Manager, CRC Mining, Australia, 2007.

#### **Courses taught:**

Undergraduate (Mining engineering):

Rock mechanics, Rock mechanics laboratory, Geotechnics,

Graduate (MSc Rock mechanics and Tunnel engineering):

Mechanical rock cutting, advanced underground design and construction methods, advanced tunnel construction techniques.

Graduate (PhD Rock mechanics):

Deep drilling, Coupled simulations,

Graduate (MSc Petroleum Exploration/production Engineering):

Petroleum Geomechanics (advanced rock mechanics for petroleum applications)

#### **Previous Experiences**

Hard Rock Tunnelling

- Mechanized tunnelling with tunnel boring machine and roadheader: Machine
  performance prediction (including machine advance rate/production rate, disc
  cutter/pick consumption, equipment selection, definition of required machine
  characteristics based on rock mass conditions), data processing, data analysis,
  TBM/roadheader follow ups and recommendation to improve machine performance.
- Design of support system for underground spaces: stability analysis by using different methods (empirical, structural controlled, numerical approach), design of support systems for tunnels, caverns and rock slopes.
- Rock mass characterisation: Field and laboratory testing plan, data processing (including intact rock and rock fractures), data analysis and interpretation of geotechnical data by using statistical methods, prediction of rock mass behaviour and definition of design criteria.
- Stability analysis and support design for underground powerhouse cavern in Karun 3 scheme, one of the biggest hydroelectric power plants in Iran.
- Head of underground structures department in SCE Company. Supervising and coordinating the work of teams of engineers and technical personnel for Design of more than 10 different medium size hard rock tunnel projects in Iran (Before PhD).
- A lot of experience in hard rock TBM performance analysis and providing new adjustment factors for Colorado School of Mine's prognosis model which takes into account the impact of joint/fractures spacing and orientation.
- collecting, analysing and interpretation TBM operational data along with geotechnical information from 15 different hard rock tunnels, all bored by Tunnel Boring Machines in Switzerland, Norway, USA, France, Iran and Hong Kong (During PhD).
- Research fellow and project leader on Rapid Mine Development within the Rock Fragmentation Optimization group in CRC Mining, University of Queensland for more than 2 years.
- Dealing with emerging mechanical rock cutting technology which is currently under commercialization stage for mechanized hard rock mining application.
- Senior rock mechanics engineer in designing urban tunnels in PB Australia in Airport Link Tunnel (Brisbane)

#### Research/consulting experiences

#### **Selected Industrial Research Contracts (graduate students)**

- Research contract for PhD student, Mehdi Assari, Development of new methodology to build geomechanical modelling of the reservoir based on well logging and seismic data, IOCFC, 2017-2018.
- Research contract for MSc student, Mohammad Haj Saiedi, 3D fracture modelling to evaluate mud lost in oilwells in SW of Iran, NISOC, 2016-2017.
- Research contract for MSc student, Yosef Teimory, estimation of geomechanical parameters using Mechanical/Drilling Specific Energy in several oilwells in south west of Iran, 2016-2017.
- Research contract for PhD student, Mohammad Anne-Mangoli, Development of new boreability index to evaluate drilling performance in reservoir formations, NISOC, 2015-2017
- Research contract for PhD student, Mohammad Javad Nasri, Coupled hydromechanical behavior of the rock mass with special attention to the design of water curtain in unlined rock cavern for underground storage of crude oil using coupled hydro-mechanical modelling, IOTCO, 2014-2016
- Research contract for MSc student, Hamed Amiri, Geomechanical study to determine best candidate wells for performing hydraulic fracturing in Bangestan group formations at one of the NISOC oil fields, NISOC, 2015-2016

- Research contract for MSc student, Mohammad Mohammadi-Behbood, Geomechanical classification of reservoir formations based on Drilling/Mechanical Specific Energy, NIDC, 2015-2016
- Research contract for MSc student, Sina Anzanpour, Evaluate the effect of geomechanical parameters on the well stability in one of the NISOC fields, NISOC, 2014-2015
- Research contract for MSc student, Masoud Torabikhah, Determining the optimum drilling trajectory of horizontal wells based on reservior 3D geomechanical modelling, case study: One of the NISOC's oil field, NISOC, 2013-2015
- Research contract for MSc student, Mohammad Ali Chamanzad, Design of hydraulic fracturing treatment in oilwells in south west of Iran, PEDEC, 2013-2014
- Research contract for MSc student, Sina Norouzi Evaluate the effect of reservoir rock mechanical properties on the drilling penetration rate in wells of Petroleum Engineering and Development Company's field, PEDEC, 2013-2014
- Research contract for MSc student, Amin Asgari, Stability analysis of natural gas storage salt caverns, NIGC, 2011-2012
- Research contract for MSc student, Morteza Namaani, Technical evaluation of hydraulic fracturing in a number of wells of an oil field to increase oil production, ICOFC, 2011-2012
- Research contract for MSc student, Maliheh Davoud-Abadi, Design of lined rock cavern for underground storage of crude oil, IOTCO, 2010-2011

#### **Consulting and industrial projects**

- Consulting services study and evaluation of hydrocarbon storage methods, 2010-2012
- Senior advisor for Tunnel Monitoring Systems, Tabriz subway tunnels, 2010-2011
- Supervisor of Research project of National Science Foundation, Iran National Science Foundation, 2011.
- Feasibility study of establishment of Science and Industry Coordination Centre of underground storage of oil and gas, Semnan Park Science and Technology, 2012-2014
- Managing brine production from salt dissolution process for underground gas storage in domal salt and aquifer, RIPI, 2012-2014
- Setting of appropriate solutions for tunnel excavation in highly fractured, high water pressured and deep zone, ESRW, 2011-2013
- Design and implementation of Iranian Tunnelling Association (IRTA) database, IRTA, 2009
- Senior advisor of Engineering and Quality Control management, Gotvand Dam, Roudbar dam, Sardasht dam and Tehran subway tunnel-Line 7, 2009-2011.
- Senior advisor of Karaj Water Supply tunnel project-lots 2, 2010-2011,
- TBM performance prediction and design specifications review, Zagros Tunnel, Iran, 2005-2006.
- TBM performance analysis of 9 Norwegian TBM bored tunnels, Trondheim, Norway, 2004.
- TBM performance analysis of Queens Tunnel project, NY, USA, 2004.
- TBM performance analysis of access tunnel of Lötschberg project, Switzerland, 2004.
- Study of TBM performance data of KCRC tunnel project, Hong Gong, 2003.
- Study of TBM performance data of BPNL tunnel project, Lyon, France, 2003.
- Initial estimation of TBM performance in Maurice Lemaire tunnel, France, 2002.
- Stability analysis of Karun III underground Powerhouse cavern, Iran, 1997.
- Slope stability analysis in Sarcheshmeh Open pit Mine, Iran, 1994.

#### • Other graduate thesis

- 1. Supervisor of PhD thesis entitled: "Developing new boreability index for hard rock TBM" by Morteza Khosravi, Shahrood University, 2017
- 2. Supervisor of thesis entitled: "Evaluate the effect of Tehran 7 line subway tunnel drilling on stability of Abazar tunnel at the junction with the use of numerical methods" by S. Hosseini, Shahrood University, 2014
- 3. Supervisor of thesis entitled: "Preliminary design communication tunnel Kharg island to the main beach" by S. Javanmard, Shahrood University, 2013
- 4. Supervisor of thesis entitled: "Numerical modeling of injection and storage of carbon dioxide in hydrocarbon reservoirs (CCS) Case Study: oil field in south western of Khuzestan" by SH. Barati, Shahrood University, 2013
- Supervisor of thesis entitled: "Hydraulic modeling of the rock mass around the tunnel by numerical methods and its control procedures to facilitate the drilling, case study: Zagros water transport tunnel (Part II)" by M.R. Mehravaran, Shahrood University, 2012
- 6. Supervisor of thesis entitled: "Modeling and analysis of gas leaks from underground mining sites of underground coal gasification (UCG) process, case study: Tabas coal mine" by A.A. Lotfi-Azad, Shahrood University, 2012
- 7. Supervisor of thesis entitled: ""Continuation of joint modeling and its effect on strength" by J. Zadhesh, Shahrood University, 2012
- 8. Supervisor of thesis entitled: "Land improvement around subway stations for machine drilling with EPB using numerical methods, case study: U7 station of Tehran subway's seven line" by A. Mahmoodi, Shahrood University, 2012
- 9. Supervisor of thesis entitled: "Technology review and stability analysis of limestone caverns for natural gas storage in dissolution method" by V. Maeboodi, Shahrood University. 2012
- 10. Supervisor of thesis entitled: "Stability and leakage analysis of natural caves at Iran meeting in order to preliminary feasibility for underground storage of crude oil" by A. Soltanalizadeh, Shahrood University, 2011
- 11. Supervisor of thesis entitled: "Geometric design, stability analysis and determining reinforcement system of crude oil storage cavern" by M. davoodabadi, Shahrood University, 2011
- 12. Supervisor of thesis entitled: "Feasibility study of construction Sardasht Dam underground power station by using underground method" by SH. Rahimi, Shahrood University, 2010
- 13. Supervisor of thesis entitled: "Dynamic analysis of large underground structures under loads of explosion, case study: Ghazvin storage reservoir" by M. Mohammadnejad, Shahrood University, 2010
- 14. Supervisor of thesis entitled: "Choose a suitable small section tunneling drilling machine using fuzzy multi-criteria decision-making, case study: Hamadan's sewage" by A. Jafari-Moghaddam, Shahrood University, 2010

## **Publications**

## Journal Papers

English

No.	Title
1	Anzanpoor, S., <b>Ramezanzadeh</b> , <b>A.</b> , Tokhmechi, B., Parhizgar, R., (2017), "Drilling Trajectory Optimization in Normal Tectonic Regime, Applying the Numerical Method in One of Southern West oil fields of Iran", Arabian Journal of Geoscience (under review)
2	Chamanzad, M.A., <b>Ramezanzadeh</b> , <b>A.</b> , Tokhmechi, B., Norouzi, H., (2017), "Comparison of different hydraulic fracture growth models based on reservoir condition of one carbonate oil field in south-west of Iran, Journal of Mining and environment (under review)
3	Norouzi, S., <b>Ramezanzadeh, A.</b> , Jalali, S.M.E., Tokhmechi, Roustaei, A., (2017), "Effect of rock properties on ROP modelling using statistical and intelligent methods A case study of an oil well in southwest of Iran", Archives of Mining Sciences (under review)
4	Anemangely, M., Ramezanzadeh, A., Tokhmechi, B. (2017), "Examining Input Parameters for Estimating Shear Wave Using Petrophysical Logs in Multi-Objective Optimization and Statistical Methods", Journal of Geology, Geophysics and Environment (Under review).
5	Anemangely, M., <b>Ramezanzadeh, A.</b> , Tokhmechi, B. (2017), Evaluation of the Input Parameters in the Penetration Rate Estimation Using Multi-Objective Optimization and Statistical Method. Iranian Journal of Science and Technology Transaction A: Science (Under review).
6	Mohammadi Behboud, M., <b>Ramezanzadeh, A.</b> , Tokhmechi, B., Anemangely, M., (2017), "Estimation of Geomechanical Rock Characteristics from Specific Energy Data Using Combination of Wavelet Transform with ANFIS-PSO Algorithm", Journal of Natural gas science and engineering (under review)
7	Anemangely, M., <b>Ramezanzadeh</b> , <b>A.</b> , Tokhmechi, B. (2017), "Determination of constant coefficients of Bourgoyne and Young drilling rate model using a novel evolutionary algorithm", Journal of Mining and environment, (DOI: 10.22044/jme.2017.842)
8	Anemangely, M., <b>Ramezanzadeh, A.</b> , Tokhmechi, B. (2017), "Shear wave travel time estimation from petrophysical logs using ANFIS-PSO algorithm: A case study from Ab-Teymour Oilfield", Journal of Natural Gas Science and Engineering 38 (2017) 373-387
9	Zare Naghadehi, M., <b>Ramezanzadeh</b> , <b>A.</b> (2016), "Models for Estimation of TBM Performance in Granitic and Mica Gneiss Hard Rocks in a Hydropower Sub-Sea Tunnel", Bulletin of Engineering Geology and the Environment (DOI 10.1007/s10064-016-0950-y)
10	Najafi, M., Ramezanzadeh, A., Dezvareh, G.A., (2016), "Determination of Suitable Method for Solution Mining Brine Recycling Using Fuzzy Analytical Hierarchy Method", Desalination and Water Treatment, (accepted for publication)
11	Mohammadi Behboud, M., <b>Ramezanzadeh, A</b> ., Tokhmechi, B. (2016), "Studying Empirical Correlation between Drilling Specific Energy and Geo-Mechanical Parameters in an Oil Field in SW Iran", Journal of Mining and environment, (DOI: 10.22044/jme.2016.689)
12	Zadhesh, J., Jalali, M.E., <b>Ramezanzadeh, A</b> , (2013), "Estimation of joint trace length probability distribution function in igneous, sedimentary and metamorphic rocks", Arabian Journal of Geosciences, ( <b>ISI</b> ), 7(6), pp 2353-2361
13	Saeidi, O., <b>Ramezanzadeh</b> , <b>A.</b> , Sereshki, F., and Jalali, M.E., (2013), "Numerical modeling of the effects of joint hydraulic aperture, orientation and spacing on rock grouting using UDEC: A case study of Bakhtiary Dam of Iran", Journal of Mining & Environment,( <b>ISC</b> ), 4(1), pp 5-26

14	Ghasemi, E., Ataei, M., Shahriar, K., Sereshki, F., Jalali, M.E., <b>Ramazanzadeh, A.</b> , (2012), "Assessment of roof fall risk during retreat mining in room and pillar coal mines" international Journal of Rock Mechanics & Mining Sciences, ( <b>ISI</b> ), (54), pp 80–89
15	Mohamadnejad, M., Gholami, R., <b>Ramezanzadeh, A.,</b> Jalali, M.E., (2011), "Prediction of blast induced vibrations in limestone quarries by using Support Vector Machine algorithm", Journal of Vibration and Control, ( <b>ISI</b> ) 18(9), pp 1322-1339 (Acepted), Doi:10.1177/1077546311421052.
16	Jafari, A., Ataie, M., Jalali, M.E., <b>Ramazanzadeh, A.,</b> (2011), "Preference of effective factors in suitable selection of microtunnel boring machines (MTBM) by using the fuzzy analytic hierarchy process (FAHP) approach", Revista de Matematica: Teoria y Aplicaciones, 18(2), pp 249–263
17	<b>Ramezanzadeh, A.,</b> Hood, M., (2010), "Review of the state-of-the-art mechanical rock excavation technologies", International Journal of Mining and Environmental Issues, Shahrood University of Technology, Vol.1. No.1, pp 29-39

## o Persian

	Title
1	Jalali, S.M.E, Emami, M., Najafi, M., Garib, F., Mohammadi, H., <b>Ramezanzadeh, A.</b> , (2014), "The underground coal gasification technology (UCG) strategy to improve the country's energy economy", Science and Research Journal of Energy Economics, No 4, Vol 13, pp 63-88
2	Soltanalizadeh, A., <b>Ramezanzadeh, A.</b> , Jalali, S.M.E, (2014), "suitable natural cave study and selection for underground crude oil storage using a combination of AHP and TOPSIS methods", Science and Research Journal of Geologiacal Engineering, No 8, Vol 3, pp 2239-2260
3	Rafiei, R., <b>Ramezanzadeh</b> , A., Sereshki, F., Movahedinejad, E., (2013), "The effect of joint properties study on the steady flow of water entering the tunnel Case Study: Third Tunnel Koohrang", Science and Research Quarterly Engineering Journal of tunnels and underground spaces, No 2, Vol 2, pp 155-167
4	Mahdavinejad, H., <b>Ramezanzadeh, A.</b> , Jalali, S.M.E, (2013), "Cement-based grout mix design optimization in vitro studies Case Study: Karaj-Tehran tunnel sealing injection", Science and Research Quarterly Journal of Transportation Engineering, No 5, Vol 2, pp 249-262
5	Mohammadnejad, M., Jalali, S. M. E, <b>Ramezanzadeh, A.</b> , Mikaeil, R., (2012), "Analysis of the impact of changes in rock properties on the propagation of blast waves in the rock strata", Science and Research Journal of technology and exploitation of mineral resources, No1, Vol 1
6	Asgari, A., Asgarinejad, Y., <b>Ramezanzadeh, A.</b> , Sherkati, Sh., (2012), "Optimal Depth Estimation of salt caverns for storage of hydrocarbon by using the intelligent numerical methods", Scientific- Propagative Journal of Exploration & Production Oil & Gas, No 1, pp 99-103.

# • Conference papers

## o English

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No.	Title
1	Anemangely, M., <b>Ramezanzadeh</b> , <b>A.</b> , Tokhmechi, B., (2017), "Evaluation of the Effects of Geomechanical Parameters on Drilling Rate Using MLP-PSO Algorithm", Second National Conference on Petroleum Geomechanics, Jan. 24-27 2017, NIOC-Exploration Directorate, Tehran, Iran.

2	Ramezanzadeh, A., Dezvareh, G.A., Najafi, M., (2015), "Water Supply Requirements for Solution Mining; An Important Challenge for the Iranian Underground Natural Gas Storage in Salt Dome", SMRI Fall 2015 Technical Conference, Santander, Spain
3	Asgari, A., <b>Ramezanzadeh</b> , <b>A.</b> , Jalali, S. M. E., (2012), "Stability Analysis of Natural-Gas Storage Caverns in Salt Formations", SMRI Fall 2012 Technical Conference, 1-2 October, Bremen, Germany.
4	Mohammadnejad, M., <b>Ramezanzadeh, A.</b> , Jalali, S.M.E, Azizmohammadi, D., (2010), "Numerical Stability analysis of underground galleries under high explosion load", Six <sup>th</sup> International Conference of Seismology and Earthquake Engineering, Tehran, Iran
5	Ramezanzadeh, A., Rostami, J., Tadic, D., (2008), "Impact of Rock Mass Characteristics on Hard Rock TBM Performance", 13 <sup>th</sup> Australian Tunneling Conference, Melbourne, Australia
6	Stewart, P., <b>Ramezanzadeh, A.,</b> Knights, P., (2006), "Benchmark Drill and Blast and Mechanical Excavation Advance Rates for Underground Hard Rock Mine Development", Proceedings of the 2006 Australian Mining Technology Conference "Value through Cost Control", 26-27 September, Hunter Valley, NSW, Australia, pp. 41-63.
7	Ramezanzadeh, A., Rostami, J., Kastner, R., (2005), "Etudes statistiques de l'effet de caractéristiques massifs rocheux sur un tunnelier dans chantier de KCRC D320 (Hong Kong)", Congres international de l'AFTES 2005, 10-12 octobre, Chambéry, France (French).
8	Ramezanzadeh, A., Rostami, J., Kastner, R., (2005), "Influence of Rock Mass Properties on Performance of Hard Rock TBMs", RETC 2005, June 27-29, Seattle, Washington, USA.
9	<b>Ramezanzadeh, A.,</b> Rostami, J., Kastner, R., (2004), "Performance Analysis of Hard Rock Tunnel Boring Machines at KCRC tunnel (Hong Kong)", Eurock 2004 and 53 <sup>rd</sup> Geomechanics Colloquy, Oct. 6-7 2004, Salzburg, Austria, pp.609-613.
10	Ramezanzadeh, A., Rostami, J., Kastner, R., (2004), "Performance Prediction models for Hard Rock Tunnel Boring Machines", Proceedings of Sixth Iranian Tunneling Conference, Jan. 27-29 2004, University of Science and Technology of Iran, Tehran, Iran (English).

## o Persian

No.	Title
0	Mohammad Anemangely, Ahmad Ramezanzadeh, and Behzad Tokhmechi. Evaluation of
	the Effects of Geomechanical Parameters on Drilling Rate Using MLP-PSO Algorithm. 2 <sup>nd</sup>
	National Conference on Geomechnics, Tehran, January 2017.
	Eslami Andargoli, M. B., Shahriar, K., Ramezanzadeh, A., Moshrefi, S., 2017, "The
	comparison of types of uni-dimensional and multi-dimensional models relate to time-
1	dependent on creep behavior of rock mass", Proceedings of Second National Conference
	on Petroleum Geomechanics, Jan. 24-27 2017, NIOC- Exploration Directorate, Tehran,
	Iran, (Persian).
2	Mohammad Anemangely, Ahmad Ramezanzadeh, and Behzad Tokhmechi, (2017). Mud
	Weight Window Determination in Reservoir Drilling Operation using Mohr-Coulomb and
	Hoek-Brown Criteria. The 5 <sup>th</sup> international conference on Geotechnical Engineering and Soil
	Mechanics. November 2016, Tehran. (In Persian)
3	Mohammad Anemangely, Ahmad Ramezanzadeh, and Behzad Tokhmechi. Shear Wave
	Estimation from Petrophysical Logs using Empirical Relationships and MLP Neural
	Network. the 5 <sup>th</sup> international conference on Geotechnical Engineering and Soil Mechanics.
	November 2016, Tehran. (In Persian)

	Eslami Andargoli, M. B., Shahriar, K., Ramezanzadeh, A., 2017, "The influence of
4	monotonic and cyclic long-term loading on dynamic elastic constants of rock salt", Proceedings of Second National Conference on Petroleum Geomechanics, Jan. 24-27 2017,
	NIOC- Exploration Directorate, Tehran, Iran, (Persian).
5	Amiri, H., Ramezanzadeh, A., Parhizgar, M.R., 2017, "Construction of 1D
	Geomechanical Model and Comparison between Mohr - Coulomb and Mogi-Coulomb
	failure criteria in Bangestan Reservoir in Ahwaz Oilfield", Proceedings of Second National
	Conference on Petroleum Geomechanics, Jan. 24-27 2017, NIOC- Exploration Directorate,
6	Tehran, Iran, (Persian).  Anzanpour, S., <b>Ramezanzadeh, A.,</b> Tokhmchi, B, Parhizgar, M.R., 2017, "Prediction of
	Stress Regime in an Oil Field Applying the Mechanical Earth Model, Case Study: Rag-e-
	Sefid Oil Field", Proceedings of Second National Conference on Petroleum Geomechanics,
	Jan. 24-27 2017, NIOC- Exploration Directorate, Tehran, Iran, (Persian).
	Mohammadi Behboud, M., Ramezanzadeh, A., Tokhmchi, B., Anemangely, M., 2017,
	"Estimation of acoustic wave pressure and acoustic shear wave from specific energy data
7	using combination wavelet transform with ANFIS-PSO algorithm", Proceedings of Second
	National Conference on Petroleum Geomechanics, Jan. 24-27 2017, NIOC- Exploration
	Directorate, Tehran, Iran, (Persian).
	Chamanzad, M, A., Ramezanzadeh, A., Noroozi, H., 2017, "Determination of principal
8	stress using six-arm caliper tool in Azadegan oil field", Proceedings of Second National
	Conference on Petroleum Geomechanics, Jan. 24-27 2017, NIOC- Exploration Directorate, Tehran, Iran, (Persian).
	Amiri, H., <b>Ramezanzadeh, A.,</b> Parhizgar, M.R., 2017, "A Fracability Index for Selecting
	Candidate Well and Layer for Hydraulic
9	Fracturing Treatment in Ahwaz Oil Field", Proceedings of Second National Conference on
	Petroleum Geomechanics, Jan. 24-27 2017, NIOC- Exploration Directorate, Tehran, Iran,
	(Persian).
	Chamanzad, M.A., Ramezanzadeh, A., Tokhmechi, B., Norouzi, H., (2015), "Proppant
10	and acid fracturing different effects (case study for Sarvak field, Azadegan oilfield)", 1st
	National Conference on Petroleum Geomechanics, International Convention Center of
	RIPI. Chamanzad, M.A., Norouzi, S., Ramezanzadeh, A., Tokhmechi, B., Norouzi, H., (2015),
	"Geomechanical modeling andredtermination safe drilling mud window (case study in the
11	Azadegan oil field well)", 1st National Conference on Petroleum Geomechanics,
	International Convention Center of RIPI.
	Torabikhah, M., Ramezanzadeh, A., Tokhmechi, B., Molaghab, A., (2015), "1D
12	geomechanical modeling in Aghajari oil field (case study) ", 1st National Conference on
	Petroleum Geomechanics, International Convention Center of RIPI.
	Torabikhah, M., Ramezanzadeh, A., Tokhmechi, B., Molaghab, A., (2015), "Comparing
13	the results of Mohr-Coulomb Hook-Brown and Mogi-Columbus failure criteriain
	geomechanical modelling", 1st National Conference on Petroleum Geomechanics,
	International Convention Center of RIPI.  Anzanpoor, S., <b>Ramezanzadeh, A.</b> , Tokhmechi, B., Parhizgar, M.R., (2015), "Numerical
	study of effect of inclination and Azimuth of drilling on wellbore stability, case study: one
14	of the NISOC's oil field", 1st National Conference on Petroleum Geomechanics,
	International Convention Center of RIPI.
	Noroozi, S., Ramezanzadeh, A., Karimi, M., Hajjar, M., (2015) "Assessment temporary
15	maintenance system of Niayesh tunnel in Tehran based on suduction in urban land", Ten <sup>th</sup>
	international Civil Enginering congress, Tabriz, Iran.
16	Anzanpoor, S., Ramezanzadeh, A., Tokhmechi, B., Parhizgar, M.R, (2014), "determin the
	optimum drilling trajectory of non-vertical wells in drilling deep well, Case study: One of
	the NISOC's oil field", second National Iranian Drilling Industry Congress, RIPI
17	Anzanpoor, S., Ramezanzadeh, A., Tokhmechi, B., Parhizgar, M.R, (2014), "the usage of
	1D geomechnical modelling in wellbore stability analysis by compare 2D and 3D models
	behaviour approach", second National Iranian Drilling Industry Congress, RIPI Heidari, A., Jalali S. E., Sereshki, F., <b>Ramezanzadeh, A.</b> , "gas leakage study from UCG
18	extraction site, using numerical modelling", 5th Iranian Rock Mechanics conference,
	Tehran (Persian).
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19	Asgari, A., Jalali S.E., <b>Ramezanzadeh, A.</b> , (2014), "Impact of geomechanical parameters on stability of natural gas storage salt cavern", 5 <sup>th</sup> Iranian Rock Mechanics conference, Tehran (Persian).
20	Torabikhah, M., Ramezanzadeh, A., Tokhmechi, B., Rasooli, V., (2014), "3D Geomechnical model, utility on oil and gas field development", third National Conference of Petroleum Engineers and the Upstream Industry, Broadcasting Convention Center, Tehran
21	Noroozi, S., Ramezanzadeh, A., Jalali S. E., Tokhmechi, B., Rostaii, A., (2014), "Simulation of drilling rate of penetration using an artificial neural network: a case studyone well in Azadegan oil field", Mining Science Conference, Mazandaran, Sari (Persian).
22	Ma'boodi, V., <b>Ramezanzadeh, A.</b> , (2013), "Modeling face pressure drilling in EPB machin, case study: Tehran's subway seven line (east-west segment)", 10 <sup>th</sup> tunnel Conference, Olympic Hotel, Tehran, Iran
23	Rafiee, R., <b>Ramezanzadeh, A.</b> , Sereshki, F., Jalali S. E., Movahedinezhad, E., (2013) "estimation leakage underground water flow to Kohrang3 tunnel using analytical and numerical methods and compare them with those", 10 <sup>th</sup> tunnel Conference, Olympic Hotel, Tehran, Iran
24	Najafi, M., Jalali S. E., Kakaei, R., Sereshki, F., <b>Ramezanzadeh, A.</b> , (2012), "Feasibility Extracting energy from coal resources using advanced technology underground coal gasification (UCG), case study: Mazinoo coal region in Tabas", second Emerging Trends in Energy Conservation- ETEC, Tehran.
25	Barati, S., <b>Ramezanzadeh</b> , A., Mirzaei, H., (2012), "Environmental risks of carbon dioxide storage in geological structures", National Conference on Civil Engineering & Sustainable Development, Mashhad
26	Barati, S., <b>Ramezanzadeh</b> , <b>A.</b> , Mirzaei, H., (2012), "study of carbon dioxide storage in oil and gas reservoirs", 31 <sup>th</sup> Symposium Congress on Geosciences, Geological Survey of Iran, Tehran
27	Lotfali Azad, A., <b>Ramezanzadeh, A.</b> , Jalali S. E., (2012), "Comparison of Gas Seepage of Underground Coal Gasification Reactor at Different Depths by Using CFD Method", 4 <sup>th</sup> Iranian Mining Engineering conference, Tehran (Persian).
28	Zadhesh, J., <b>Ramezanzadeh, A.</b> , Jalali S. E., (2012), "Investigate the effect of the joints geometric properties on jointed rock mass strength", 16 <sup>th</sup> Iranian Geology Association convention, Shiraz (Persian).
29	Zadhesh, J., <b>Ramezanzadeh</b> , A., Jalali S. E., (2012), "Correlation study between rock joint length and aperture in igneous, metamorphic and sedimentary rocks", 16 <sup>th</sup> Iranian Geology Association convention, Shiraz (Persian).
30	Lotfali Azad, A., <b>Ramezanzadeh, A.</b> , Jalali S. E., (2012), "Investigation the economic status of underground coal gasification (UCG) process in coal mining" (Persian).
31	Lotfali Azad, A., <b>Ramezanzadeh, A.</b> , Jalali S. E., (2012), "Compilation of design parameters in underground coal gasification (UCG) process", 1 <sup>st</sup> National Coal congress, Shahrood (Persian).
32	Lotfali Azad, A., <b>Ramezanzadeh, A</b> ., Jalali S. E., (2012), "Prefeasibility study of using the underground coal gasification (UCG) process in mazino coal mine" (Persian).
33	Mohammadi, S., Khorasani, E., <b>Ramezanzadeh, A.</b> , (2012), "Application of thin spray – on liner on underground structure reinforcement", 1 <sup>st</sup> Iranian Minning Technologys, Yazd (Persian).
34	Mohammadnejad, M., <b>Ramezanzadeh, A.</b> , Jalali S. E., Azizmohammadi, D., 2011, "Numerical stability analysis of underground galleries under high projectile explosion load", Six <sup>th</sup> International Conference of Seismology and Earthquake Engineering, Tehran, Iran, (Persian).
35	Mohammadnejad, M., <b>Ramezanzadeh, A.</b> , Jalali S. E., Azizmohammadi, D., 2011, "Dynamic analysis of underground structure under projectile explosion load", Six <sup>th</sup> International Conference of Seismology and Earthquake Engineering, Tehran, Iran, (Persian).
36	Mohammadnejad, M., <b>Ramezanzadeh</b> , A., 2011, "Feasibility of using mechanized excavation methods in construction of hydrocarbons caverns", the first Iranian Virtual Conference on Underground Storage of Hydrocarbons, Shahrood, Iran, (Persian).

37	Forghani, M., <b>Ramezanzadeh</b> , A., Heidari Sheibani, R., 2011, "Requirements for Design of unlined rock caverns for hydrocabons storage", the first Iranian Virtual Conference on Underground Storage of Hydrocarbons, Shahrood, Iran,(Persian)
38	Davoodabadi, M., <b>Ramezanzadeh, A.</b> , Jalali S. E., 2011, "Underground natural gas storage concepts comparison", The first Iranian Virtual Conference on Underground Storage of Hydrocarbons, Shahrood, Iran,(Persian).
39	Davoodabadi, M., <b>Ramezanzadeh, A.</b> , Jalali S. E., 2011, "Design requirements for prevention of seepage in liquid natural gas (LNG) rock cavern", the First Iranian Virtual Conference on Underground Storage of Hydrocarbons, Shahrood, Iran,(Persian).
40	Davoodabadi, M., <b>Ramezanzadeh</b> , A., Jalali S. E., Jalalifar, H., 2011, "Influence survey of geo-mechanical Pparameters on oil storage cavern stability in Aghajari formation", The first Iranian Virtual Conference on Underground Storage of Hydrocarbons, Shahrood, Iran,(Persian).
41	Davoodabadi, M., <b>Ramezanzadeh, A.</b> , Jalalifar, H., 2011, "Concepts of liquified natural gas storage in lined rock caverns", The First Iranian Virtual Conference on Underground Storage of Hydrocarbons, Shahrood, Iran,(Persian).
42	Noroozi, M., Jalali S.E., <b>Ramezanzadeh, A.</b> , 2011, "Storage of energy carriers in underground structures as a passive defense structures" The first Iranian Virtual Conference on Underground Storage of Hydrocarbons, Shahrood, Iran, (Persian).
43	Soltanalizadeh, A., Ramezanzadeh, A., Jalali S.E., Noroozi, M., 2011, "Preliminary evaluation of Iran's natural caves for underground storage of crude oil", the first Iranian Virtual Conference on Underground Storage of Hydrocarbons, Shahrood, Iran, (Persian).
44	Noroozi, M., Jalali S.E., <b>Ramezanzadeh, A.</b> , Sereshki, F., 2011, "Evaluation of technical economic construction of underground storage of Hydrocarbon caverns in limestone formation by solution mining method", the first Iranian Virtual Conference on Underground Storage of Hydrocarbons, Shahrood, Iran, (Persian).
45	Soltanalizadeh, A., <b>Ramezanzadeh, A.</b> , Jalali S.E., 2011, "Introducing a robust algorithm for selection of appropriate underground hydrocarbon storage methods in rock caverns", The first Iranian Virtual Conference on Underground Storage of Hydrocarbons, Shahrood, Iran,(Persian).
46	Asgari, A., Jalali S.E., <b>Ramezanzadeh, A.</b> , Heydariseybani, R., 2011, "Incidents in underground hydrocarbon storage in salt formations and solution to deal with", the First Iranian Virtual Conference on Underground Storage of Hydrocarbons, Shahrood, Iran, (Persian).
47	Ramezanzadeh, A., Forogh, O., Hashemi, S., Bazghandi, A., 2011, "Design of online Iranian tunnel database", First Asian and 9 <sup>th</sup> Iranian Tunneling Symposium, Tehran, Iran,(Persian).
48	Eftekhari, M., <b>Ramezanzadeh</b> , A., Jalali, S.E., Noroozi, M., 2011, "Feasibility study of using abandoned underground mines as a passive defense structure", First Asian and 9 <sup>th</sup> Iranian Tunneling Symposium, Tehran, Iran,(Persian)
49	Mohammadnejad, M., <b>Ramezanzadeh</b> , A., Janesary, A., Gholami, R., 2011, "Investigation of crack zone development around the excavations due to blasting and its effects on the stability of structure", First Asian and 9 <sup>th</sup> Iranian Tunneling Symposium, Tehran, Iran, (Persian).

50	Davoodabadi, M., <b>Ramezanzadeh</b> , A., Jalali S. E., Jalalifar, H., 2011, "Stability analysis and support system determination for Genaveh oil storage cavern", First Asian and 9 <sup>th</sup> Iranian Tunneling Symposium, Tehran, Iran, (Persian).
51	Forogh, O., Torabi, R., <b>Ramezanzadeh, A.</b> , 2011, "Evaluation of geological parameters on the Tunnel Boring Machines (TBM) stopping time at KARAJ water transfer tunnel ", First Asian and 9 <sup>th</sup> Iranian Tunneling Symposium, Tehran, Iran, (Persian).
52	Mohtarami, E., <b>Ramezanzadeh</b> , <b>A.</b> , 2011, "Evaluation of roadheder performance in excavation of BABOLAK dam tunnel", 4 <sup>th</sup> Iranian Rock Mechanics Conferences (IRMC4), Tehran, Iran, (Persian).
53	Mohammadnejad, M., Jalali S. E., <b>Ramezanzadeh</b> , A., 2011, "Stability analysis of underground storage galleries under high explosion load", 4 <sup>th</sup> Iranian Rock Mechanics Conferences (IRMC4), Tehran, Iran, (Persian).
54	Mohammadnejad, M., Gholami, R., <b>Ramezanzadeh, A.</b> , Jalali S. E., 2011, "Evaluation of periodic minimal optimization algorithm capability compared with the neural network general regression in predicting the maximum bit rate", 4 <sup>th</sup> Iranian Rock Mechanics Conferences (IRMC4), Tehran, Iran, (Persian).
55	Davoodabadi, M., <b>Ramezanzadeh</b> , <b>A</b> ., Jalali S. E., 2011, "Conceptual design of Genaveh oil storage cavern", 4 <sup>th</sup> Iranian Rock Mechanics Conferences (IRMC4), Tehran, Iran, (Persian).
56	Ramezanzadeh, A., 2009, "In-situ stress measurement techniques for urban shallow tunnel- A case study", 8 <sup>th</sup> Iranian Tunneling Conference, Tehran, Iran.
57	Mighani, M., <b>Ramezanzadeh</b> , A., Moarefvand, P., 2001, "Application of Convergence measurements as the simplest monitoring system in tunneling – A case study, Dasht Abbas tunnel", Proceedings of Fifth Iranian Tunneling Conference, Oct. 27-29 2001, Faculty of Engineering, University of Tehran, Tehran, Iran, (Persian).
58	Bahmani, R., <b>Ramezanzadeh, A.,</b> 2001. "Study of the influence of different parameters to reduce of over break in drill and blast tunneling - A case study", Proceedings of Fifth Iranian Tunneling Conference, Oct. 27-29 2001, Faculty of Engineering, University of Tehran, Tehran, Iran, (Persian).