

DR. VAMEGH RASOULI

Professional Timeline (all-inclusive 18 years old to present, in reverse chronological order)

July 2017–Present: Director, Jodsaas Centre for Leadership and Entrepreneurship, College of Engineering & Mines, UND. Responsibilities include offering different activities for nearly 3,000 Engineering students in the College to learn set up and run small business, practice teamwork and leadership skills and do collaborative projects within the College and other Schools including the business School.

March 2015–Present: Department Chair, Continental Resources Distinguished Professor, Department of Petroleum Engineering, UND. In addition to teaching courses at undergrad and grad level and advising grad students and doing research project, the Chair responsibilities include quality assessment of the program, ABET accreditation coordination, hiring faculty, staff and grad students, fundraising and securing scholarship, engage the industry advisory council to support the department, attract industry and research fund, increase enrolment and retention for both undergrad and grad programs, expand on existing teaching and research labs and add new labs and manage all financial aspects of the department. Overall budget management including all the external fund change from \$5M-\$10M per annum. Total student numbers of nearly 250 in the department and 12 faculty and staff plus over 15 visiting scholars and researchers are working in the department on average on an annual basis.

January–February 2015: Perth, Australia. Preparing for move to the USA to join my new job appointment at UND as the Chair of Petroleum Engineering program.

August 2012–Present: Part-Time Instructor, Schlumberger's Network of Excellence Training (NExT) Program. The courses delivered face to face and online. Delivering industry short courses for international oil and gas companies worldwide.

July 2008–July 2010: Part-Time Consulting Engineer, Schlumberger Oil and Gas Service Company, Perth, Australia. Conducted several industry projects related to oil and gas drilling and Geomechanics.

August 2006–December 2014: Senior Lecturer, Associate and Full Professor (Acting Head and Head of Department), Department of Petroleum Engineering, Curtin University, Perth, Australia. Similar responsibilities to my current position at UND in terms of teaching and research and duties as the department Chair. Total number of students 500, faculty and staff and visitors 20 in the department.

November 2004–August 2006: Part-Time Consulting Engineer, Schlumberger Oil and Gas Service Company, Tehran, Iran. Conducted several industry projects related to oil and gas drilling and Geomechanics.

February 2003–August 2006: Assistant Professor, Acting Head of Department, Amirkabir University, Tehran, Iran. In addition to teaching undergrad and grad level courses to Mining, Chemical and Petroleum Engineering students, I was appointed as the Deputy of the newly established Petroleum Engineering Department to build the Undergraduate and graduate program, raise fund to build a new building and labs, and other responsibilities similar to my current Chair position at UND. Total number of students 300, faculty and staff 40 in the department.

September 2002–January 2003: Traveled from United Kingdom to Tehran, Iran, after completing Ph.D. and settling down before commencing new job.

January 2000–August 2002: Ph.D. Candidate, Imperial College, University of London, London, United Kingdom.

March 1997–December 1999: Preparation for overseas Ph.D. exam competition and move to United Kingdom, Tehran, Iran.

September 1995–February 1997: M.Sc. Candidate, Engineering Rock Mechanics, Tehran Polytechnic University, Tehran, Iran.

September 1991–August 1995: B.Sc. Candidate, Mining Engineering, Yazd University, Yazd, Iran.

July 1990–September 1991: Preparation for university entrance exam, Tehran, Iran.

Qualifications

Ph.D., Imperial College, University of London, London, United Kingdom, 2002.

M.Sc., Engineering Rock Mechanics, Tehran Polytechnic University, Tehran, Iran, 1997.

B.Sc., Mining Engineering, Yazd University, Yazd, Iran, 1995.

Professional Experience

July 2017–Present: Director, Jodsaas Centre for Leadership and Entrepreneurship, College of Engineering & Mines, UND.

March 2015–Present: Department Chair, Continental Resources Distinguished Professor, Department of Petroleum Engineering, UND.

August 2012–Present: Instructor, Schlumberger's Network of Excellence Training (NExT) Program.

July 2008–July 2010: Part-Time Consulting Engineer, Schlumberger Oil and Gas Service Company, Perth, Australia.

August 2006–December 2014: Senior Lecturer, Associate and Full Professor (Acting Head and Head of Department), Department of Petroleum Engineering, Curtin University, Perth, Australia.

November 2004–August 2006: Part-Time Consulting Engineer, Schlumberger Oil and Gas Service Company, Tehran, Iran.

February 2003–August 2006: Assistant Professor, Acting Head of Department, Amirkabir University, Tehran, Iran.

Research Projects Completed

From	To	Project Title	Organization	Role & Fund Amount
Aug 2021	Aug 2024	Atomic Force microscope and associated accessories	NSF	Co-PI \$349,180
Aug 2021	Aug 2024	2 nd Phase: Study to Determine the Feasibility of Developing Salt Caverns for Hydrocarbon Storage in Western North Dakota	EERC/NDIC	Co-PI: \$50,000
June 2020	May 2023	ND CarbonSAFE Phase III - Site Characterization and Permitting	DOE, Jointly applied with the EERC	Co-PI \$129,438
Mar 2020	Feb 2023	Support Petroleum Engineering Research at UND	North Dakota Industrial Commission (NDIC)	PI: \$2,778,000
Oct 2020	Dec 2020	1 st Phase: Study to Determine the Feasibility of Developing Salt Caverns for Hydrocarbon Storage in Western North Dakota	North Dakota Industrial Commission (NDIC)	Co-PI: \$20,000
Jan 2020	Dec 2023	Safety Reporting Action Program for Offshore Oil and Gas Industries in the Gulf of Mexico	National Academies of Sciences, Engineering and Medicine (NAS)	Co-PI: \$750,000
Jul 2019	Feb 2019	Enhancing Reservoir Productivity Through a New Hydraulic Fracturing Approach	State Energy Research Center (SERC)	Co-PI: \$70,000
Mar 2020	Oct 2020	Simulation of refracturing for EOR	SERC	Co-PI: \$70,000
Sep 2018	Feb 2020	Refracturing and data analytics for EOR in Bakken	NDIC	PI: \$600,000
Oct 2018	Oct 2020	Joint Inversion of TimeLapse Seismic Data	U.S. Department of Energy (DOE), DE-FE0031540	Co-PI: \$102,302
Apr 2017	Apr 2018	An Integrated Software Package for Data Processing, Modeling, and Simulation of Unconventional Reservoirs	Research North Dakota	Co-PI: \$100,000
Oct 2016	Oct 2019	Field Demonstration of the Krauklis Seismic Wave	DOE, DE-FE0028659	Co-PI: \$167,000
Jan 2016	Jan 2017	Postdoctoral Research Fellow Grant	UND	PI: \$40,000

Jan 2013	Dec 2014	Design and manufacture of a large-scale true triaxial stress cell to study geomechanical aspects of CO ₂ sequestration	National Geosequestration Lab (NGL), Australia	Co-PI: \$3,000,000
2013	2014	Next-Generation Drilling Technologies	Deep Exploration Technology Cooperative Research Centre (DET CRC) of Australia	PI: \$300,000
Jan 2012	Dec 2013	Upscaling laws for hydraulic fracturing of tight reservoirs based on reproducible true triaxial laboratory testing	Australian Research Council linkage research project (ARC LP)	PI: \$607,000
Oct 2011	Oct 2013	A study of shale gas geomechanics in the Perth basins	MERIWA, Western Australia	PI: \$619,000
Feb 2011	Feb 2014	Predicting CO ₂ injectivity properties for application at CCS sites	ANLEC R&D, Western Australia	Co-PI: \$653,000
2010	2011	Geomechanics and Drilling Design of Tight Gas Wells	WAERA, Western Australia	PI: \$140,000

Industry Projects Completed

From	Project Title	Organization	Fund Amount
2012–Present	Delivered over 70 industry courses in Drilling, Geomechanics, & Unconventional Reservoirs	Schlumberger's NExT Training Program	Instructor
Mar 2014–Sept 2014	Review and Study the Proposed Hydraulic Fractured Well for shale gas production from Canning Basin	An independent review project funded by Buru Energy, Australia	\$32,000
Jan 2012–May 2012	Estimation of state of in situ stresses in an injection site in Australia	Buru Energy, Australia	\$25,000
Apr 2011–Oct 2011	Mud weight design and wellbore stability analysis for Mountain Bridge Well	Norwest Energy, Australia	\$30,000
Sep 2011–Dec 2011	Mud weight Design, wellbore stability analysis and hydraulic fracturing studies of Arrowsmith 2 Shale Gas Well	Norwest Energy, Australia	\$40,000
Jan 2010–May 2010	Rock Mechanical Modelling and Wellbore Stability Study for Well Mondarra 1	APA Australia	\$20,000
Jun 2010–Dec 2010	Rock Mechanical Modelling and Hydraulic	AWE Australia	\$40,000

	Fracturing Study of Well Corybas-01 in Elegans Area		
Apr 2009– Aug 2009	Geomechanical Study of Mondarra Field, Australia. Phase-1: Data review	APA Australia	\$15,000
Jan 2009– Aug 2009	Rock Mechanical Modelling and Hydraulic Fracturing Studies for Woodada-5 & 6 Wells	AWE Australia	\$40,000
Feb 2009– Dec 2009	Wellbore stability study and Mechanical Earth Modelling of Blacktip Field, PNG	Schlumberger	\$55,000
Jul 2009– Dec 2009	Wellbore stability study and Mechanical Earth Modelling of Blacktip field, ENI Australia	Schlumberger	\$30,000
Mar 2009– Sep 2009	Reservoir Geomechanics Study of Enfield field, Woodside Petroleum	Schlumberger	\$12,000
Oct 2006– Dec 2006	Wellbore stability study in Anaran field	Schlumberger	\$70,000
Oct 2006– Dec 2006	Wellbore stability study in Mehr field	Schlumberger	\$70,000

Professional & Other Services

Year	Project Title	Organization
Apr 2015– Present	Established Petroleum Engineering Labs (including Teaching, Research, Virtual Reality, Drilling Simulator, Drilling Rig, Slurry Loop)	UND
Sep 2006– Aug 2010	Coordinated an international dual degree Master of Petroleum Engineering program for 4 years at Curtin University with National Oil Company, Iran	Curtin University
Oct 2012– Jul 2014	Developed several labs (ultrahigh-speed drilling rig, flow loop, True Triaxial Stress Cell [TTSC])	Curtin University
Feb 2007– Oct 2009	Developed and designed a unique TTSC for advanced Petroleum Geomechanics lab experiments.	Curtin University
Sep 2007	Established Curtin Petroleum Geomechanics Group (CPGG)	Curtin University
2007– Present	Advised over 20 Ph.D. students, 100 Master's students	Curtin University, UND
Oct 2006– Present	Member of Society of Petroleum Engineers	SPE
Sep 2010– Present	Member of editorial board, Journal of Petroleum Engineering & Technology	Journal Board
Jul 2014– Present	Member of editorial board, Rock Mechanics Rock Engineering	Journal Board
Oct 2013– Present	Member of editorial board, Journal of Petroleum & Environmental Biotechnology	Journal Board

Publications

2021

- Li, Xue; Chen, Bing; Rasouli, Vamegh; Zhou, Ning; Zhang, Qian; Liu, Xuanya; Huang, Weiqiu; Numerical Simulation of Leakage and Diffusion Process of LNG Storage Tanks 2021.
- Marinos, Paul G; Hanson, James L; Acknowledgement of Reviewers for 2020 Geotechnical and Geological Engineering, 2021 Springer.
- Borozdin, Sergey Olegovich; Dmitrievsky, Anatoly Nikolaevich; Eremin, Nikolai Alexandrovich; Arkhipov, Alexey Igorevich; Sboev, Alexander Georgievich; Chashchina-Semenova, Olga Kimovna; Fitzner, Leonid Konstantinovich; Drilling Problems Forecast Based on Neural Network Offshore Technology Conference, 2021.
- Badrouchi, Foued; Hole Cleaning and Cuttings Transportation Modelling and Optimization 2021.
- Akash, Omar Bilal; Numerical Simulations of Hydraulic Fracturing Through Perforated Wellbores. 2021.
- Zhang, Delong; Wang, Yu; Sha, Junjie; He, Yuguang; Performance Prediction of a Turbodrill Based on the Properties of the Drilling Fluid Machines, 2021.
- Tomomewo, Olusegun S; Reducing Produced Water Disposal via Effective Treatments Methods and Re-use: Proposed Sustainable Application for Bakken, North Dakota, 2021.
- Zhang, Fengshou; Wang, Xiaohua; Tang, Meirong; Du, Xianfei; Xu, Chuangchao; Tang, Jizhou; Damjanac, Branko; Numerical Investigation on Hydraulic Fracturing of Extreme Limited Entry Perforating in Plug-and-Perforation Completion of Shale Oil Reservoir in Changqing Oilfield, China. Rock Mechanics and Rock Engineering, 2021.
- Bagheri, Mohammadreza; Shariatipour, Seyed M; Ganjian, Eshmaiel; Parametric study on the integrity of wellbores in CO₂ storage sites. Construction and Building Materials, 2021. Elsevier.
- Li, Zhigang; Xu, Guangli; Dai, Yunyun; Zhao, Xin; Fu, Yongpeng; Effects of foliation on deformation and failure mechanism of silty slates International Journal of Rock Mechanics and Mining Sciences. 2021, Elsevier.
- Ogunkunle, Temitope; Fadairo, Adesina; Rasouli, Vamegh; Ling, Kegang; Oladepo, Adebawale; Chukwuma, Onyinyechi; Ayoo, James; Microbial-derived bio-surfactant using neem oil as substrate and its suitability for enhanced oil recovery Journal of Petroleum Exploration and Production. 627-638. 2021, Springer.
- Fadairo, Adesina; Vamegh, Rasouli; Kegang, Ling; Tomomewo, Olusegun; Ayinde, Ayokunle; Iwenjora, George N; Modelling flow for finite conductivity in long horizontal oil wells. Energy Exploration & Exploitation, 2021.
- Fadairo, Adesina; Adeyemi, Gbadegesin; Temitope, Ogunkunle; Kegang, Ling; Vamegh, Rasouli; Enuice, David; Temitope, Ilusemiti; Ayoo, James; Banana peel and mango kernel-based polymers and their suitability in enhanced oil recovery. Journal of Petroleum Exploration and Production. 2027-2037. 2021, Springer.
- Gholami, Raoof; Raza, Arshad; Aadnøy, Bernt; Rabiei, Minou; Rasouli, Vamegh; Time-dependent compaction of deep-water reservoirs: A study on the viscous behavior of unconsolidated sandstone. Journal of Natural Gas Science and Engineering. 2021, Elsevier.

- Pandey, Vibhas J; Rasouli, Vamegh; Fracture Height Growth Prediction Using Fluid Velocity Based Apparent Fracture Toughness Model. Rock Mechanics and Rock Engineering. 2021, Springer.
- Pandey, Vibhas J; Rasouli, Vamegh; Vertical growth of hydraulic fractures in layered formations SPE Hydraulic Fracturing Technology Conference and Exhibition. 2021.
- Ashena, Rahman; Rabiei, Minou; Rasouli, Vamegh; Mohammadi, Amir H; Mishani, Siamak; Drilling Parameters Optimization Using an Innovative Artificial Intelligence Model Journal of Energy Resources Technology. 2021. American Society of Mechanical Engineers.
- Fadairo, Adesina; Adeyemi, Gbadegesin; Ogunkunle, Temitope; Ling, Kegang; Rasouli, Vamegh; Effiong, Elijah; Ayoo, James; Study the suitability of neem seed oil for formulation of eco-friendly oil-based drilling fluid Petroleum Research. 2021, Elsevier.
- Pandey, Vibhas J; Rasouli, Vamegh; A semi-analytical model for estimation of hydraulic fracture height growth calibrated with field data. Journal of Petroleum Science and Engineering. 2021, Elsevier.
- Foued, Badrouchi; Vamegh, Rasouli; Simulation of settling velocity and motion of particles in drilling operation. Journal of Petroleum Science and Engineering . 2021, Elsevier.
- Ashena, Rahman; Hekmatinia, Abdol-Azim; Ghalambor, Ali; Aadnoy, Bernt; Enget, Charissa; Rasouli, Vamegh; Improving drilling hydraulics estimations-a case study Journal of Petroleum Exploration and Production Technology. 2021, Springer.

2020

- Minaeian, V., Dewhurst, D., and Rasouli, V., 2020. An Investigation on Failure Behaviour of a Porous Sandstone Using Single-Stage and Multi-stage True Triaxial Stress Tests. Rock Mech Rock Eng.
- Boualam, A., Rasouli, V, Dalkhaa, C, Djeddar, S., 2020. Stress-Dependence of the Permeability and Porosity of Thin Bed Reservoir, Three Forks, Williston Basin. 54thUS Rock Mechanics/Geomechanics Symposium held Golden. Colorado, USA, 28 June-1 July. ARMA 20–1742.
- Boualam, A., Rasouli, V, Dalkhaa, C, Djeddar, S., 2020. Advanced Petrophysical Analysis and Water Saturation Prediction in Three Forks Reservoir, Williston Basin. SPLWA–750.
- Djeddar, S., Rasouli, V., Boualam, A., Rabiei, M. (2020). An integrated workflow for multiscale fracture analysis in reservoir analog. Arab J Geosci 13, 161. <https://doi.org/10.1007/s12517-020-5085-6>
- Ellafi, A., Jabbari, H., Wan, X., Rasouli, V., Geri, M.B., and Al-Bazzaz, W., 2020. How Does HVFRs in High TDS Environment Enhance Reservoir Stimulation Volume?, International Petroleum Technology Conference
- Wan, X., Rasouli, V. Damjanac, B., Yu, Wei, Xie, H., Li, N., Rabiei, M., Miao, J., and Liu, M., 2020. Coupling of fracture model with reservoir simulation to simulate shale gas production with complex fractures and nanopores. Journal of Petroleum Science and Engineering 193, 107422.
- Wan, X., Rasouli, V., Damjanac, B., and Pu, H., 2020. Lattice simulation of hydraulic fracture containment in the North Perth Basin, Journal of Petroleum Science and Engineering 188, 106904, 1, 2020
- Ashena, R., Elmgerbi, A., Rasouli, V., Ghalambor, A., Rabiei, M., and Bahrami, A., 2020. Severe wellbore instability in a complex lithology formation necessitating casing while drilling and continuous circulation system. J Petrol Explor Prod Technol 10, 1511–1532. <https://doi.org/10.1007/s13202-020-00834-3>.
- Rasheed, Z., Raza, A., Gholami, R., Rabiei, M., Ismail, A., and Rasouli, V., 2020. A numerical study to assess the effect of heterogeneity on CO₂ storage potential of saline aquifers. Energy Geoscience, Vol 1, p.p. 20-27.
- Gholami, R., Raza, A., Rabiei, M., Fakhari, N., Balasubramaniam, P., Rasouli, V., and Nagarajan, R., 2020. An approach to improve wellbore stability in active shale formations using nanomaterials, Petroleum, <https://doi.org/10.1016/j.petlm.2020.01.001>

- Zhou, N., Mei, Y., Li, X., Chen, B., Huang, W.Q., Rasouli, V., Zhao, H.J., and Yuan, Z.J., 2020. Numerical Simulation of the Influence of Vent Conditions on Hydrogen Flame Propagation. Combustion Science and Technology. ISSN: 0010-2202.
- Guana, S., Gholami, R., Raza, A., Rabiei, M., Fakhari, M., Rasouli, V., and Nabinezhad, O., 2020. A nanoparticle based approach to improve filtration control of water based muds under high pressure high temperature conditions. Petroleum, Vol. 6, Issue 1, p.p. 43-52.
- Zhang, K., Cha, J.H., Kirlikovalie, K.O., Ostadhassan, M., Rasouli, V., Farhae, O.K., Jang, H.W., Varma, R.S., and Shokouhimehr, M. Pd modified prussian blue frameworks: Multiple electron transfer pathways for improving catalytic activity toward hydrogenation of nitroaromatics. Molecular Catalysis Volume 492.

2019

- Raza, A., Gholami, R., Rasouli, V., Rezaee, R., Bing, C.H., and Nagarajan, R., 2019. Chapter 1. An Introduction to Carbon Capture and Storage Technology. From: Membrane Technology for CO₂ Sequestration and Separation. ISBN: 13: 978-1-138-50450-9.
- E Bakhshi, V Rasouli, A Ghorbani, MF Marji, B Damjanac, X Wan, 2019. Lattice numerical simulations of lab-scale hydraulic fracture and natural interface interaction. Rock Mechanics and Rock Engineering 52 (5), 1315-1337.
- R Ashena, G Thonhauser, A Ghalambor, V Rasouli, R Manasipov, 2019. Determination of Maximum Allowable Safe-Core-Retrieval Rates. SPE Reservoir Evaluation & Engineering 22 (02), 548-564.
- A Raza, R Gholami, M Rabiei, V Rasouli, R Rezaee, 2019. Greenhouse Gas Emissions and Energy Transition in Pakistan. International Journal of Big Data Mining for Global Warming, 1950006.
- A Raza, R Gholami, M Rabiei, V Rasouli, R Rezaee, 2019. Injection rate estimation to numerically assess CO₂ sequestration in depleted gas reservoirs. Energy Sources, Part A: Recovery, Utilization, and Environmental Effects, 1-10.
- E Bakhshi, V Rasouli, A Ghorbani, M Fatehi Marji, 2019. Lattice numerical simulations of hydraulic fractures interacting with oblique natural interfaces. International Journal of Mining and Geo-Engineering 53 (1), 83-89.
- A Tohidi, A Fahimifar, V Rasouli, 2019. Effect of non-Darcy Flow on induced stresses around a wellbore in an anisotropic in-situ stress Field. Scientia Iranica 26 (3), 1182-1193.
- E Bakhshi, V Rasouli, A Ghorbani, M Fatehi Marji, 2019. Hydraulic fracture propagation: analytical solutions versus Lattice simulations. Journal of Mining and Environment 10 (2), 451-464.
- J Wang, H Song, V Rasouli, J Killough, 2019. An integrated approach for gas-water relative permeability determination in nanoscale porous media. Journal of Petroleum Science and Engineering 173, 237-245.
- A Raza, R Gholami, G Meiyu, V Rasouli, AA Bhatti, R Rezaee, 2019. A review on the natural gas potential of Pakistan for the transition to a low-carbon future. Energy Sources, Part A: Recovery, Utilization, and Environmental Effects.
- A Raza, R Gholami, R Rezaee, V Rasouli, M Rabiei, 2019. Significant aspects of carbon capture and storage—A review. Petroleum 5 (4), p.p. 335-340.
- A Raza, R Gholami, R Wheaton, M Rabiei, V Rasouli, R Rezaee, 2019. Primary recovery factor as a function of production rate: implications for conventional reservoirs with different drive mechanisms. Energy Sources, Part A: Recovery, Utilization, and Environmental Effects.
- B Tokhmechi, J Nasiri, H Azizi, M Rabiei, V Rasouli, 2019. Wavelet Neural Network: A Hybrid Method in Modeling Heterogeneous Reservoirs. International Journal of Mining and Geo-Engineering 53 (2), 203-211.
- A Raza, R Gholami, M Rabiei, V Rasouli, R Rezaee, N Fakhari, 2019. Impact of geochemical and geomechanical changes on CO₂ sequestration potential in sandstone and limestone aquifers. Greenhouse Gases: Science and Technology 9 (5), 905-923.
- CX Liew, R Gholami, M Safari, A Raza, M Rabiei, N Fakhari, V Rasouli, 2019. A new mud design to reduce formation damage in sandstone reservoirs. Journal of Petroleum Science and Engineering 181, 106221.

- B Tokhmechi, V Rasouli, H Azizi, M Rabiei, 2019. Hybrid clustering-estimation for characterization of thin bed heterogeneous reservoirs. *Carbonates and Evaporites* 34 (3), 917-929.
- A Boualam, S Djeddar, V Rasouli, M Rabiei, 2019. 3D Modeling and Natural Fractures Characterization in Hassi Guettar Field, Algeria. 53rd US Rock Mechanics/Geomechanics Symposium.
- F Badrouchi, N Badrouchi, M Rabiei, V Rasouli, 2019. Estimation of Elastic Properties of Bakken Formation Using an Artificial Neural Network Model. 53rd US Rock Mechanics/Geomechanics Symposium.
- S Djeddar, V Rasouli, A Boualam, M Rabiei, 2019. A New Method for Reservoir Fracture Characterization and Modeling Using Surface Analog. 53rd US Rock Mechanics/Geomechanics Symposium.
- S Djeddar, V Rasouli, A Boualam, M Rabiei, 2019. Size Scaling and Spatial Clustering of Natural Fracture Networks Using Fractal Analysis. 53rd US Rock Mechanics/Geomechanics Symposium.
- N Djabelkhir, X Song, X Wan, O Akash, V Rasouli, B Damjanac, 2019. Notch Driven Hydraulic Fracturing in Open Hole Completions: Numerical Simulations of Lab Experiments. 53rd US Rock Mechanics/Geomechanics Symposium.
- F Badrouchi, X Wan, I Bouchakour, O Akash, V Rasouli, B Damjanac, 2019. Lattice Simulation of Fracture Propagation in the Bakken Formation. 53rd US Rock Mechanics/Geomechanics Symposium.
- X Wan, V Rasouli, B Damjanac, M Torres, D Qiu, 2019. Numerical simulation of integrated hydraulic fracturing, production and refracturing treatments in the Bakken formation. 53rd US Rock Mechanics/Geomechanics Symposium.

2018

- Bakhshi, E., Rasouli, V., Ghorbani, A. et al. *Rock Mech Rock Eng* (2018).
<https://doi.org/10.1007/s00603018-1671-2>.
- Gholami, R., Rabiei, M., Aadony, B., and Rasouli, V., 2018. A methodology for wellbore stability analysis of drilling into presalt formations: A case study from southern Iran. *Journal of Petroleum Sci. & Eng.* 167 (2018) 249–261.
- Guan, O.S., Gholami, R., Raza, A., Rabiei, M., Fakhari, N., Rasouli, V., and Nabinezhad, O., 2018. A nanoparticle-based approach to improve filtration control of water based muds under high pressure high temperature conditions, *Petroleum*. doi: <https://doi.org/10.1016/j.petlm.2018.10.006>.
- Raza, A., Gholami, R., Rezaee, R., Rasouli, V., Bhatti, A., A., and Bing, C., H., 2018. Suitability of depleted gas reservoirs for geological CO₂ storage: A simulation study. *Greenhouse Gas Sci Technol.* 0:1–22 (2018); DOI: 10.1002/ghg.
- Raza, A., Gholami, R., Meiyu, G., Rasouli, V., and Bhatti, A., A., 2018. A review on the natural gas potential of Pakistan for the transition to a low-carbon future. *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects*. <https://doi.org/10.1080/15567036.2018.1544993>.
- Raza, A., Meiyu, G., Gholami, R., Rezaee, R., Rasouli, V., Sarmadivaleh M., Bhatti, A., A., 2018. Shale gas: A solution for energy crisis and lower CO₂ emission in Pakistan. *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects*. <https://doi.org/10.1080/15567036.2018.1544993>.
- Wang J., Song, H., Rasouli V., Killough, J., 2018. An integrated approach for gas-water relative permeability determination in nanoscale porous media. *Journal of Petroleum Science and Engineering*. Volume 173, February 2019, Pages 237-245.
- Tokhmechi, B., Rasouli, V., Azizi, H., and Rabiei, M., 2018. Hybrid clustering-estimation for characterization of thin bed heterogeneous reservoirs. *Carbonates and Evaporites*.
<https://doi.org/10.1007/s13146-018-0435-0>.
- Ashena, R., Thonhauser, G., Ghalambor, A., Rasouli, V. & | Manasipov, R., 2018. Determination of Maximum Allowable Safe Core Retrieval Rates. SPE-189480-MS. SPE International Conference and Exhibition on Formation Damage Control, 7-9 February, Lafayette, Louisiana, USA.
- Tokhmechi, B., Nasiri, J., Azizi, H., Rabiei, M., and Rasouli, V., 2018. Wavelet Neural Network: A Hybrid Method in Modeling Heterogeneous Reservoirs. *International Journal of Mining and Geo-Engineering*.

- Tokhmechi, B., Azizi, H., Rabiei, M., and Rasouli, V., 2018. A New 2D Block Ordering System for Wavelet-Based Multi Resolution Up-Scaling. *International Journal of Mining and Geo-Engineering*.
- Tokhmechi, B., Rasouli, V., Azizi, H., and Rabiei, M., 2018. Hybrid clustering-estimation for characterization of thin bed heterogeneous. *Carbonates Evaporites*. DOI 10.1007/s13146-018-0435-0. 2017
- Tohidi, A., Fahimifar, A., and Rasouli, V., 2017. Analytical Solution to Study Depletion/Injection Rate on Induced Wellbore Stresses in an Anisotropic Stress Field. *Geotechnical and Geological Engineering*.
- Minaeian, V., Dewhurst, D., and Rasouli, V., 2017. Deformational behaviour of a clay-rich shale with variable water saturation under true triaxial stress conditions. **GETE (Geomechanics for Energy and the Environment)** 2017.
- Zhao, P., Ma, H., Rasouli, V., Liu, W., Cai, J., and Huang, Z., 2017. An improved model for estimating the TOC in shale formations. **Marine and Petroleum Geology**.
<http://dx.doi.org/10.1016/j.marpetgeo.2017.03.018>
- Fallahzadeh, S. H., Hossain, M. M., Cornwell, A. J., and **Rasouli, V.**, 2017. Near Wellbore Hydraulic Fracture Propagation from Perforations in Tight Rocks: The Roles of Fracturing Fluid Viscosity and Injection Rate. **Energies**.
- Moradi, A., Tokhmechi, B., **Rasouli, V.**, and Fatehi M., 2017. Comprehensive numerical study of hydraulic fracturing process and its affecting parameters. **Geotechnical and Geological Engineering**. 2016
- Mokhtari, M., Wood, D., Ghanizadeh, S., Kulkarni P., **Rasouli, V.**, Fathi, E., Saidian, M., and Barati, R., 2016. Virtual special issue: Advances in the petrophysical and geomechanical characterization of organic-rich shales. **Journal of Natural Gas Science and Engineering**. p.p. 1-4.
- Gholami, R., Rasouli, V., Sarmadivaleh, M., Minaeian, V., and Fakhari, N., 2016. Brittleness of gas shale reservoirs: a case study from the North Perth basin, Australia. **Journal of Natural Gas Science and Engineering**. 33 (2016) 1244-1259.
- Pu., H., Li., C., Elsworth, D., Xu, X., and Rasouli, V., 2016. Stress- and Adsorption-Dependent Permeability of Fractured Sorbing Media. **Journal of Natural gas science and engineering**.
- Minaeian, V., Dewhurst, D., and Rasouli, V., 2016. Triaxial and True Triaxial Testing of Preserved and Partially Saturated Shale. The 5th Fifth EAGE Shale Workshop Quantifying Risk and Potential. 2015
- Book Chapter**
- Rasouli, V., 2015. Book Chapter: Chapter 8: Geomechanics of Gas Shales. *Fundamentals of Gas Shale Reservoirs*. John Wiley & Spons. Inc. 2015. p. 169-190.
<http://www.amazon.com/Fundamentals-Shale-Reservoirs-Reza-Rezaee/dp/1118645790>.
- Papers**
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