

PERSONAL INFORMATIONS

Full Name: Ali Ranjbar

Date of Birth: September 4, 1989

Address(Work): Faculty of Petroleum, Gas and Petrochemical Engineering,
Persian Gulf University, Shahid Mahini Boulevard, Bushehr, Iran.

Member of Faculty (since 2019)

(Department of Petroleum Engineering, Persian Gulf University, Bushehr, Iran)

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EDUCATIONS

2002-2006: Diploma, Mathematics & Physics, Persian Gulf University High School, Bushehr, Iran

TOP Student (rank 1), GPA: 19.27/20

2007-2011: B.Sc., Petroleum Exploration Engineering, Petroleum University of Technology (PUT), Abadan, Iran.

Credits passed: 142

TOP Student (rank 1), GPA: 17.73/20

2011-2013: M.Sc., Petroleum Exploration Engineering, University of Tehran, Tehran, Iran.

Credits passed: 32

TOP Student (rank 2), GPA: 17.52/20

2013-2019: Ph.D. Candidate, Petroleum Exploration Engineering, Amirkabir University of Technology, Tehran, Iran.

Credit passed: 18

TOP Student (rank 1), GPA: 18.02/20

2016-2017: Made an internship in Laboratory of Experimental Rock Mechanics (LEMUR) from November 1st 2016 to March 31th 2017 at EPFL (Ecole Polytechnique Fédérale de Lausanne) university of Switzerland.

THESIS

MS. Thesis: **Coupled Fluid Flow-Geomechanics Simulation in Estimation of Compaction and Subsidence in Stress Sensitive Reservoirs;**

- Supervisor: Prof. Hossein Memarian
- Co-Supervisor: Dr. Mohammadreza Rasaei

Ph.D. Thesis: **Gas Injection Effects on Geomechanical Behavior of Faults in Hydrocarbon Reservoirs**

- Supervisors: Dr. Hossein Hassani and Prof. Kurosh Shahriar

Seminars & Lectures:

- Building geomechanical earth models based on the well logs and drilling report.
- Reservoir depletion effects on compaction, casing collapse and fault reactivation events.
- Introduction to EOR methods and suitable type for Iranian hydrocarbon reservoirs.

HONORS AND AWARDS

- Receiving a scholarship in Ph.D. from the Ministry of Science and Research of Iran (2014)
- Ranked 2nd Among M.Sc. Students of Petroleum Exploration Engineering at University of Tehran, Tehran, Iran (2013)
- Top researcher certificate in 3rd research festival of petroleum university of technology hold in Tehran, (2012)
- Ranked 1st Among B.Sc. Students of Petroleum Exploration Engineering at Abadan Institute of Technology, Petroleum University of Technology, Abadan, Iran (2011)
- Excellent ranked in NIOC (National Iranian Oil Company), Exploration Directorate in Job Training, (2009)

WORKING AND SCIENTIFIC EXPRIENCES

- Member of Faculty of Petroleum, Gas and Petrochemical Engineering, Persian Gulf University, Bushehr, Iran (2019-Present)
- Chairman of the board Sazand Kavan Foruzan Co., Persian Gulf University (2016-Present)

- Head of the Rock Properties Laboratory, Faculty of Petroleum, Gas and Petrochemical Engineering, Persian Gulf University, Bushehr, Iran (2019-Present)
- Executive manager of 3rd International Biennial Oil, Gas, and Petrochemical Conference (OGPC2020) (2019-2020)
- Member of strategic planning council of 3rd Biennial Oil, Gas, and Petrochemical Conference (OGPC2020) (2019-2020)
- Head of “Check the oil and gas value chain and expression of the selection criteria optimization” Project in Iranian Technology Analysis Network Co. (ITAN) (2013)
- Job Training (2 month) in Schlumberger well services company, Ahwaz, Iran (summer 2010)
- Job Training (2 month) in NIOC (National Iranian Oil Company), Exploration Directorate, Tehran, Iran (summer 2009)

SERVING AS A REVIEWER

- Journal of Oil, Gas and Petrochemical Technology
- 2nd and 3rd International Biennial Oil, Gas, and Petrochemical Conference (OGPC)
- 5th and 6th Persian Gulf Knowledge Festivals, premier innovations in oil, gas and petrochemical industries
- Petroleum Technology Conference and Exhibition (PTCE), Tehran, Iran

SEMINAR/PRESENTATION EXPERIENCES

- Attended in 3rd International Biennial Oil, Gas, and Petrochemical Conference workshop entitled “Reservoir Characterization by NMR” by Dr.Parchekhari (2020)
- Participating in Petroleum Geomechanics course by Dr. Rasouli, University of Tehran, Iran (2013)
- Attended in International Conference of Oil, Gas & Petrochemicals workshop entitled “Seismic Imaging Techniques and Velocity Model Building Methods” by Prof. Gerritsma (2011)
- Attended in geological trip for structural and petroleum geological investigation by NIOC (National Iranian Oil Company), Exploration Directorate, Shiraz, Iran (2009)
- Attended in TOTAL Company’s Workshops entitled “Well Log Analysis” and “Petroleum Geoscience”, (2008)

- Attended in Zagros Kandokav Energy Consultants Company's Workshops entitled "Seismic Interpretation (by schlumberger Petrel 2007)"(32 hours course)
- Attended in scientific association of Abadan institute of technology's Workshop entitled "Reservoir simulation(by schlumberger Eclipse black oil)"
- Attended in scientific association of Abadan institute of technology's Workshops entitled "Artificial Neural network" & "Nona technology"

TEACHING EXPERIENCE

Persian Gulf University, Bushehr, Iran (2018-present)

- **Graduate Courses:**
Introduction to Petroleum Engineering, Physical Geology, Structural Geology, Petroleum Geology, Wireline Logging and Petrophysics, Drilling, Application of Mathematics in Petroleum Engineering, Reservoir Simulation
- **Undergraduate Courses:**
Reservoir Modeling and Simulation

Petroleum University of Technology, Abadan, Iran (2008-2009)

- Schlumberger Petrel, Petroleum University of Technology, Abadan, Iran (2008)
- Teacher assistance of Matlab programming (2008-2009) (course by Dr. Jazaieri-rad)
- Teacher assistance of C# programming (2008-2009) (course by Dr. Jazaieri rad)
- Teacher assistance of geophysics(seismic) course (2008-2009) (course by Mr. Motefaker fard)

SCIENTIFIC PUBLICATIONS

Papers:

1. *Ranjbar, A.*, Ebrahimi, A., Izadpanahi, A. (2020) "Numerical Analysis of Fluid Flow in a Deformable Porous Medium", 3rd International Biennial Conference on Oil, Gas, and Petrochemical Engineering. Persian Gulf University, Bushehr, Iran.

2. **Ranjbar, A.**, Kamani, SAR., Ghaderi, A. (2020) “Petrophysical Evaluation of Fahliyan Reservoir Formation”, 3rd International Biennial Conference on Oil, Gas, and Petrochemical Engineering. Persian Gulf University, Bushehr, Iran.
3. **Ranjbar, A.**, Hassani, H., Shahriar, K., Ameri Shahrabi, M. J. (2019), “Thermo-hydro-mechanical modeling of fault discontinuities using zero thickness interface element”, Journal of Rock Mechanics and Geotechnical Engineering.
4. Khubani, S., Bahadori, AR., **Ranjbar, A.**, (2018), “Regionalization and determination of stresses around wells using clustering method in one of the wells of X field in southwest of Iran”, 3rd National Conference on Petroleum Geomechanics, Tehran, Iran.
5. **Ranjbar, A.**, Owji, A., Hajipour, Sh., Paper, H. (2018), “Review Of The Relation Between Kazerun Fault And The Geology Of Dashtestan And Dashti Regions In Bushehr Province”, 2nd International Biennial Oil, Gas and Petrochemical Conference, Bushehr, Iran.
6. Farokhian, D., Azin, R., **Ranjbar, A.** (2018), “Application of medical and dental CT-Scan technologies for determining porosity distribution of the Persian Gulf coastal zone and Zagros basin core samples”, Journal of African Earth Sciences 150, 96-106.
7. Farokhian, D., Azin, R., **Ranjbar, A.** (2018), “Application of Medical and Dental CT-Scan for Characterizing Carbonate, Evaporates, Marl and Sandstone”, 80th EAGE Conference and Exhibition, Copenhagen, Denmark.
8. Owji, M., Azin, R., Riazi, H., Bahrami, M., **Ranjbar, A.**, Farokhian, D. (2018), “Feasibility Study of Fresh Water Storage Capacity in Asmari-Jahrum Formation, Chahpir Anticline”, 80th EAGE Conference and Exhibition, Copenhagen, Denmark.
9. **Ranjbar, A.**, Hassani, H., Shahriar, K., Ameri Shahrabi, M. J. (2018), “Hybrid numerical modeling of Mandel’s problem and investigating its various aspects”, Geomechanics and geodynamics of rock masses symposium (Eurock 2018), Saint Petersburg, Russia.
10. Farokhian, D., Azin, R., **Ranjbar, A.** (2017), “Porosity calculation of Gachsaran Fm. and Asmary Fm. Cores using medical CT-scan” , 3rd national conference on oil and gas and related industries, Kerman, Iran.

11. **Ranjbar, A.**, Hassani, H., Shahriar, K. (2017), “3D geomechanical modeling and estimating the compaction and subsidence of Fahlian reservoir formation (X-field in SW of Iran)”. Arabian journal of geosciences, 10(5), 116.
12. Ghaderi, A.R., **Ranjbar, A.**, Ghaderi, A., (2016), “Environmental impact assessment of oil and gas refineries”, 4th The fourth congress of environment, energy and bio-defense, Tehran, Iran.
13. Ghaderi, A.R., **Ranjbar, A.**, Borazjani, A.R., (2016), “Evaluation and risk management of the oil pipeline in Bushehr area using the FMEA method”, 2nd International conference on new research achievements in chemistry & chemical engineering, Tehran, Iran
14. Ghaderi, A.R., **Ranjbar, A.**, Esfandiari, N., (2016), “Assess potential hazards and safety analysis of the quality control unit in national Iranian oil products distribution company (Bushehr operational area) based on FMEA method.”, 2nd International conference on new research achievements in chemistry & chemical engineering, Tehran, Iran
15. Ghaderi, A., **Ranjbar, A.**, Farahbakhsh, E., (2016), “Check the oil and gas value chain and expression of the selection criteria optimization”, 1st International Biennial Oil, Gas and Petrochemical Conference, Bushehr, Iran.
16. **Ranjbar, A.**, Hassani, H., Shahriar, K., (2015), “3D Geomechanical Modeling of FAHLIAN Reservoir in one of the Oil Field in South-West of Iran”, 1st National Conference on Petroleum Geomechanics, Tehran, Iran.
17. **Ranjbar, A.**, Hassani, H., Shahriar, K., (2015), “Evaluation of different methods and choose the optimal one to estimate shear wave velocity in the Kope-Dagh gas field”, 3rd national conference on oil and gas and related industries, Kerman, Iran.
18. **Ranjbar, A.**, Mehrgini, B., Memarian, B., (2013), " Optimum determination of drilling mud window using 1D geomechanical model in sandstones of Asmari formation (Mansuri oil field)", Petroleum Technology Conference and Exhibition (PTCE), Tehran, Iran.
19. **Ranjbar, A.**, (2012), “Coupled geomechanic-fluid flow modeling to estimate surface subsidence and reservoir compaction”, SPE Sub Regional Student Paper Contest, Tehran, Iran

Books:

1. **Ranjbar, A.**, Sabbagh, H., Bengar, A., (2015), “Reference of Petrel Software”, Setayesh publication, Iran (in Persian)
2. Zargar, Gh., **Ranjbar, A.**, Soltani, S., Neshat, J., (2013), “Structural Modeling by Petrel Software”, Setayesh publication, Iran (in Persian)
3. Esfandiari, Gh., **Ranjbar, A.**, Baiat, A., Sadeghi, M., (2009), "Hydrocarbon Reservoir Assessment", Setareh Jonub publication, Iran (in Persian)
4. Esfandiari, Gh., **Ranjbar, A.**, Baiat, A., Sadeghi, M., (2008), Translation of the Book “Advanced Reservoir Engineering”, Tarek Ahmed, Paul D.Mckinney 2005, Setareh Jonub publication, Iran (in Persian)

SOFTWARE SKILLS

- Petroleum Eng.: Schlumberger Petrel , Eclipse and Visage; Geolog
- Programming: Visual Studios : C#.net , Fortran
- Geophysics: Hampson-Russel
- Mathematics: Matlab, Maple
- Geostatistic: SGeMS, WinGslib
- Statistics: SPSS
- General: Microsoft Office, Adobe Photoshop

SPECIAL INTERESTS

- Reservoir Geomechanics
- Geomechanical modeling
- Geostatistic approaches
- Applied Mathematics
 - o Finite Volume/Difference Method (FDM/FVM)
 - o Finite/Boundary Element Method (FEM/BEM)
- Petrophysics
- Exploration Data Processing
- Rock physics modeling