



ESMAEL MAKARIAN

Petroleum Exploration Engineer

Personal Information

Nationality: Iranian

Cell: +7 775 852 2415

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Kazakhstan

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Software Skills

Python

Geolog

COMSOL

Hampson Russell

RokDoc

Petrel

Education

Master of Science in Petroleum Exploration

Sahand University of Technology

Sep 2016 - Sep 2018

Tabriz, IRAN

GPA: 3.36/4

Thesis: Porosity and Saturation Estimation Using Rock Physic Models and Seismic Data in One of the Carbonate Oil Reservoirs in the South of Iran

Bachelor of Science in Geology

Ferdowsi University of Mashhad

Sep 2011 – Sep 2015

Mashhad, IRAN

GPA: 2.85/4

Honors and Awards

Rank 30 in the Nationwide Master University Entrance Exam for MSc Degree **among 1000 Participants**, Iran, 2016.

Languages

- Persian (Native)
- English (Advanced) – ACADEMIC IELTS (EXPIRED – Feb 2020)
- Russian (intermediate)

International Certificates (English)

[1] Reservoir Geomechanics, Online Course by Prof. Mark Zoback, **Stanford University, USA, Jun 13, 2019**, No Expiration Date.

[2] Unconventional Reservoir Geomechanics, Online Course by Prof. Mark Zoback, **Stanford University, USA, Jun 13, 2019**, No Expiration Date.

Hobbies & Interests

English Language

Research

Reading (story -
novel)

Travelling

Listening to Radio

Watching Movies
(History-
Adventure)

Cooking

Walking -

[3] Teamwork, QAL, In-person Course by the United Kingdom, Held in Tehran, Iran, 40 Hours, Sep 23, 2018, No Expiration Date.

[4] Interpretation of Petrophysical Logs Based on Geolog, In-person Course by **INS Company**, Held in Gachsaran, Iran, 20 Hours, , **Jun 25 – 26, 2013**, No Expiration Date.

[5] Interpretation of Petrophysical Logs, In-person Course by **INS Company**, Held in Gachsaran, Iran, 20 Hours, **Jun 23 – 24, 2013**, No Expiration Date.

Publications

[1] Taheri, A., **Makarian, E.**, Manaman, N. S., Ju, H., Kim, T. H., Geem, Z. W., & RahimiZadeh, K. (2022). A Fully-Self-Adaptive Harmony Search GMDH-Type Neural Network Algorithm to Estimate Shear-Wave Velocity in Porous Media. Applied Sciences, 12(13), 6339. <https://doi.org/10.3390/app12136339>

[2] Mirhashemi, M., Khojasteh, E. R., Manaman, N. S., & **Makarian, E.** (2022). Efficient sonic log estimations by geostatistics, empirical petrophysical relations, and their combination: Two case studies from Iranian hydrocarbon reservoirs. Journal of Petroleum Science and Engineering, 213, 110384. <https://doi.org/10.1016/j.petrol.2022.110384>

[3] Danial Mansourian, Asiyeh Hamidi, **Esmael Makarian**, Pedram Namazifard, Maryam Mirhashemi “Geophysical surveys for saltwater intrusion assessment using electrical resistivity tomography and electromagnetic induction methods, *Earth and Space Physics Journal*, **Accepted, May 2022, Publishing.**

[4] **Esmael Makarian**, Ahmad Taheri, Adib Amini, Karamollah Bagherifard, “Pore fluid properties data-driven based on seismic parameters in porous media through supervised machine learning techniques “6th International Conferences on Applied Researches in Science and Engineering, Eurogress Conference Center, Aachen – Germany. **Accepted Jan 2022, Present in March 30, 2022.**

[5] Adib Amini, **Esmael Makarian**, Ahmad Taheri, “Application of ANN method for rock stiffness and lame parameter by seismic attributes” 6th International Conferences on Applied Researches in Science and Engineering, Eurogress Conference Center, Aachen – Germany. **Accepted Jan 2022, Present in March 30, 2022.**

[6] **Esmael Makarian**, Pedram Namazifard, Danial Mansourian, Dip Kumar Singha, Reza Gholami “The role of seismic attributes in investigating effective stress in hydrocarbon reservoirs: a case study from the southwestern Iran” The 7th International Conference on Chemical and Petroleum Engineering, (OGPCONF07_020) (**Published**).

Research Interests

Reservoir Geophysics

Reservoir Geomechanics

Rock physics

Machine Learning

Data science

Deep learning

Reservoir Geology

Co2 Storage

EOR

[7] Reza Gholami, **Esmael Makarian**, Pedram Namazifard, Adib Amini “*Geomechanical – geological features assessment utilizing geophysical data and digital rock physics for hydrocarbon sandstone reservoirs: A full – scale review*, Fourth International Conferences on Technology Development in oil, Gas, Refining and Petrochemical, **Accepted in July 2021. COI: OILBCNF04_027. (Published).**

[8] Pedram Namazifard, Navid Shad Manaman, **Esmael Makarian**, Danial Mansourian, “*Investigation of Poisson-Impedance template for over pressure detection in one of south west Iran reservoir*” 5th symposium Applied Geophysics in Petroleum Exploration. **Accepted in May 2021. (Published)**

[9] **Esmael Makarian**, Navid Shad Manaman, Maryam Mirhashemi, Pedram Namazifard, “*Investigation of the feasibility of 4D seismic survey in one of the carbonate reservoirs in southwestern of Iran*” 5th symposium Applied Geophysics in Petroleum Exploration. **Accepted in May 2021. (Published)**

[10] **Esmael Makarian**, Rasoul Hamidzadeh Moghadam, Pedram Namazifard, and Danial Mansourian “*A review of methods and patterns of rock physics in the study of sorting and cementation in sandstone reservoirs*, the 7th International Conference on Chemical and Petroleum Engineering, **Accepted in December 2020. (COI: OGPCONF07_019) (Published)**

[11] Pedram Namazifard, Rasoul Hamidzadeh Moghadam, **Esmael Makarian**, “*Overpressure Detection Using Rock Physics Templates in One of Southwest Carbonate Reservoirs of Iran* “, 19th Iranian Geophysical Conference, **Accepted in May 2020, presented in November 2020, (Published)**

[12] **Esmael Makarian**, Rasoul Hamidzadeh Moghadam, Pedram Namazifard, “*Shear Wave Velocity Estimation Using Rock Physics Models in One of the Carbonate Reservoirs of Southwestern of Iran* “, 19th Iranian Geophysical Conference, **Accepted in May 2020, presented in November 2020, (Published).**

Publications In Progress

[1] **Esmael Makarian**, Rasoul Hamidzadeh Moghadam, Reza Khoramian, Pedram Namazifard, Ayub Elyasi “*Rock Physics-based Discrimination of Carbonate Reservoirs’ Lithofacies and Saturation; A Case Study in Southwest of Iran*. Arabian Journal for Science and Engineering, **Submitted, Jun 2022.**

[2] Pedram Namazifard, Dip Kumar Singha, **Esmael Makarian**, Danial Mansourian., Ayub Elyasi “*Estimating the over-pressure zones and its seismo-mechanical assessment using rock physics*, *Geomechanics for energy and the environment Journal*, **under review, May 2022.**

[3] Ashkan Bagheri Najaf Abad, Navid Shad Manaman, **Esmael Makarian**, Pedram Namazifard, Danial Mansourian, “*Assessing the influence of the type of the fluid on Seismo-mechanical behaviour of rock reservoirs using geochemical core analysis and well logging data in a carbonate reservoir of the south-west of Iran*, [final editing]

[4] **Esmael Makarian**, Dip Kumar Singha, Enayatollah Ranjineh Khojasteh, Maryam Mir Hashemi, Pedram Namazifard – Danial Mansourian, “*Statistical rock physics analysis and geostatistics methods for estimating shear wave velocity in an oil reservoir, southwest of Iran: A practical case research*, [final editing]

Personal Features

Having Punctuality
And
Responsibility

Teamwork Skills

Leadership Skills

Attention to Details

Flexibility

Initiative

Ability to Handle
Pressure and Meet
Deadlines

Work Experience

1. Shabshekan oil and gas Company – Gachsaran oil and gas oil-field [May 2015 – April 2019]

- Petroleum Geophysicist
- Advisor To CEO
- Researcher at R & D department

2- Dashte Zibaye Hassan Abad - Khuzestan Province, Iran [August 2019 – February 2021] [Part time]

- Researcher
- Instructor: Petroleum software - Reservoir Geophysics / Geomechanics.

3- Nahal English Language School, Gachsaran, Kohgiluyeh and boyer-ahmad province - [Mar 2019 – Apr 2021]– [Part time]

- English teacher
- IELTS trainer

4 - IAPWE | International Association of Professional Writers and Editors English - New York City Metropolitan Area [May 2022 - Present] [Remote job – Part time]

- Freelance Author (Writers and Editors)

5. МАНГИСТАУЭНЕРГО МОНТАЖНАЛАДКА (МЭМН company) - [Jun 2022- Present]– [Full Time] – Aktau, Mangystau, Kazakhstan

- Senior Advisor to CEO for international affairs
- Project Manager

References

Dr. Rasoul Hamidzadeh Moghadam

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Dr. Navid Shad Manaman

Associate Professor of Mining Faculty, Sahand University of Technology, Tabriz, Iran.

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Mr. Mehdi Safaei

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