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PERSONAL DATA

Date of birth: November 21, 1985
Place of birth: Cairo, Egypt
Gender: Male
Nationality: Egyptian
Marital status: Married

EXPERIENCE

NOVEMBER 2023 – SEPTEMBER 2024

FULBRIGHT SCHOLAR AND RESEARCH ASSOCIATE, TEXAS A&M UNIVERSITY-CORPUS CHRISTI, TEXAS, USA.

AUGUST 2022 – NOVEMBER 2023

ASSISTANT PROFESSOR, DEPARTMENT OF GEOLOGY, HELWAN UNIVERSITY, EGYPT.

FEBRUARY 2022 – AUGUST 2022

VISITING POST-DOCTORAL RESEARCHER, RISSC LAB, DEPARTMENT OF PHYSICS “E. PANCINI”, UNIVERSITÀ DEGLI STUDI DI NAPOLI “FEDERICO II”, NAPOLI, ITALY.

SEPTEMBER 2020– FEBRUARY 2022

ASSISTANT PROFESSOR, DEPARTMENT OF GEOLOGY, HELWAN UNIVERSITY, EGYPT.

MARCH 2018 – MARCH 2020

VISITING Ph.D. STUDENT, DEPARTMENT OF PHYSICS “E. PANCINI”, UNIVERSITÀ DEGLI STUDI DI NAPOLI “FEDERICO II”, NAPOLI, ITALY. (JOINT SUPERVISION).

NOVEMBER 2014 – MARCH 2018

ASSISTANT LECTURER, DEPARTMENT OF GEOLOGY, HELWAN UNIVERSITY, EGYPT.

April 2009 – NOVEMBER 2014

DEMONSTRATOR, DEPARTMENT OF GEOLOGY, HELWAN UNIVERSITY, EGYPT.

EDUCATION

AUGUST 2020

Ph.D. IN GEOPHYSICS AND SEISMOLOGY, HELWAN UNIVERSITY, EGYPT.

- Title of the thesis:

"**NEURAL NETWORK TECHNIQUE AND SEISMIC ATTRIBUTES, WEST OFFSHORE NILE DELTA, EGYPT**"

NOVEMBER 2013

M.SC. IN GEOPHYSICS AND SEISMOLOGY, HELWAN UNIVERSITY, EGYPT.

- Title of the thesis:

ANALYSIS AND PETROLEUM EXPLORATION OF MIOCENE–PLIOCENE SEQUENCES OFFSHORE NILE DELTA, EGYPT"

MAY 2007

B.SC. IN SCIENCE, DIVISION OF GEOPHYSICS, DEPARTMENT OF GEOLOGY, HELWAN UNIVERSITY, EGYPT.

SKILLS

- Experienced at giving presentations to large audiences.
- Excellent communication in various work environments.
- Excellent teamwork skills.
- Ability to work for a long time.
- Good software and programming skills.

RECENT ACTIVITIES

- Faculty advisor and supervisor of the AAPG (American Association of Petroleum Geologists) student chapter activities at the Faculty of Science, Helwan University (September 2020 – present), ID: 10226758.
- Active European Association of Geoscientists & Engineers (EAGE) member with a membership number (92451).
- Supervision of nine Ph.D. and master's students at the Geology Department, Faculty of Science, Helwan University (September 2020 – present).
- Involved in a very relevant study whose objective is to image the shallow structure of the Solfatara volcano, in southern Italy (March 2018- August 2022).
- Participating in teaching, research, and geological field trips to different places in Egypt and using several geophysical survey tools (GPR, Electric, magnetic, and Seismic instruments).
- Reviewer, Scientific Reports, Journal of African Earth Sciences, Interpretation, Acta Geophysica, Petroleum Research, Applied Geophysics, Journal of Applied Geophysics, Bollettino di Geofisica Teorica e Applicata, NRIAG, frontiers in earth science, Earth Science Informatics, and Journal of Petroleum Exploration and Production Technology journals (2019-present).

RECENT AWARDS

March 2024

- I won the “best scholar prize” (2022-2023) at Helwan University, Cairo, Egypt.

May 2023

- Faculty advisor of the Laurie Dake Challenge 2023 (EAGE) team.
The team has been selected as one of the six finalists of the Laurie Dake Challenge 2023 in Vienna, Austria.

DECEMBER 2021

- I won the research excellence award of Ph.D. students at Helwan University, Cairo, Egypt (2020-2021).

March 2013, 2017, and 2024

- Faculty advisor of the IBA team
Holds second place at the level of the Africa region in the Imperial Barrel Award (IBA) Program.

TEACHING EXPERIENCE

- “The whole art of teaching is only the art of awakening the natural curiosity of the young mind.”
Anatole France, Nobel Prize for Literature, 1921
- One of the most rewarding aspects of an academic position is the opportunity to teach and interact with students. Whether or not they realize it, students can explore and think about problems in new ways. I have been most interested in teaching several courses for undergraduate, master's, and Ph.D. students in Egypt and Italy.
“Subsurface Geology, Geophysical Data Analysis, Petrophysics, Rock Physics, Petroleum Geology, Spectral Analysis, Seismic and well logging interpretation, Basin analysis, and Structural Geology”.

COMMUNITY SERVICE

- Participating in Helwan University medical and social awareness campaigns in the remote areas of the south Cairo governorate.

RECENT CONFERENCE ABSTRACTS

1. **Ismail, A.**, Ahmed, M., Elshalkany, M., Abouelmagd, A., Mansour, S., El-Nekhiely, I., Abdelfattah, M., (2024, August): Exploring the challenges of 2D seismic imaging in basement aquifers: A case study from Sinai, Egypt (IMAGE24).
2. Khalifa, T., Chikiban, B., Ali, A., Yehia, T., Fakhry, S., Emera, R., Elgheroby, Y., **Ismail, A.**, (2024, August): Machine Learning and Multi-Attribute Analysis for Optimal CO2 Storage Site Selection in the Skade Formation, Sleipner Field (IMAGE24).
3. Nazeri, S., Abdi, F., **Ismail, A.**, Rahimi, H. and Zollo, A., 2023. Earthquake source parameters in the Zagros region (Iran) from the time of evolutionary P-wave Displacement (No. EGU23-7724). Copernicus Meetings.
4. Gammaldi, S., **Ismail, A.** and Zollo, A., 2022. The updated multi-2D image of the gas accumulation zone inferred by seismic attributes and AVO analysis at the Solfatara Volcano, Italy (No. EGU22- 11885). Copernicus Meetings.
5. Khalil, A., Nawawy, M., **Ismail, A.**, 2021. Shallow Offshore Seabottom Geotechnical Modeling Using One Channel Acoustic Streamer at Kuala Sanglang, Perlis, Peninsular Malaysia. In The Arab Conference on Astronomy and Geophysics (ID. 197).

6. Gammaldi, S., **Ismail, A.**, Chiuso, T. and Zollo, A., 2020, May. The multi-2D seismic imaging of the Solfatara Volcano, Italy, inferred by seismic attributes. In EGU General Assembly Conference Abstracts (p. 16478).
7. **Ismail, A.**, Ewida, H. F., Al-Ibiary, M. G., Gammaldi, S., & Zollo, A., 2019. Neural network technique and seismic attributes, west offshore Nile Delta, Egypt. Petroleum Geology Student Contest - 3rd edition, Calvello, Italy 2019. doi: 10.3301/ABSGI.2019.06.

PEER-REVIEWED PUBLICATIONS

1. Yahia, L., Toni, M., Metwalli, Metwalli, F.I., Mansour, M. H., and **Ismail, Amir** (2024) "Integration of 3D Structural Modelling and Well Logging Analysis in the Evaluation Of October Oil field, Gulf of Suez, Egypt," Trends in advanced sciences and technology: Vol. 1: Iss. 1, Article 5. DOI: 10.62537/2974-444X.1007.
2. Metwalli, F.I., **Ismail, A.**, Pigott, J.D. (2024). Advances in Seismic and Well Log in the Exploration in North Africa. In: Hamimi, Z., et al. The Geology of North Africa. Regional Geology Reviews. Springer, Cham. https://doi.org/10.1007/978-3-031-48299-1_19.
3. Fagelnour, M. S., Talaat, A., **Ismail, A.**, Gad, A. S., & Edress, N. A. (2024). Geochemical Modeling and Hydrocarbon Generation Potentiality of Source Rocks of the Oligocene to Miocene Succession in the Tamsah Area, Eastern Nile Delta, Egypt. The Iraqi Geological Journal, 201-218.
4. **Ismail, A.**, Radwan, A. A., Leila, M., & Eysa, E. A. (2024). Integrating 3D subsurface imaging, seismic attributes, and wireline logging analyses: Implications for a high resolution detection of deep-rooted gas escape features, eastern offshore Nile Delta, Egypt. Journal of African Earth Sciences, 213, 105230. doi.org/10.1016/j.jafrearsci.2024.105230.
5. Metwalli, F. I., **Ismail, A.**, Metwally, M. S., & El Shafei, I. M. (2023). Sequence stratigraphic evaluation for the Abu Madi Formation, Abu Madi/El Qar'a/Khilala gas fields, onshore Nile Delta, Egypt. Petroleum Research, 8(4), 514-523.
6. Nazeri, S., Abdi, F., **Ismail, A.**, Rahimi, H., & Zollo, A. (2023). Earthquake source parameters in Zagros region (Iran) from the time-evolutive P-wave displacement. Scientific Reports, 13(1), 17964. <https://doi.org/10.1038/s41598-023-45119-x>
7. **Ismail, A.**, Radwan, A. A., Leila, M., Abdelmaksoud, A., & Ali, M. (2023). Unsupervised machine learning and multi-seismic attributes for fault and fracture network interpretation in the Kerry Field, Taranaki Basin, New Zealand. Geomechanics and Geophysics for Geo-Energy and Geo- Resources, 9(1), 122. <https://doi.org/10.1007/s40948-023-00646-9>
8. Basheer, A., Abdelhamid, R., Toni, M., & **Ismail, A.** (2023). Assessment of the Geo-Engineering Suitability of Subsurface Layers Using ERT and SSR, A case study: Combined Services Area of "Madinaty", New Cairo, Egypt. Journal of Applied Geophysics (Cairo), 22(1), 1-16. doi: 10.21608/jag.2023.207522.1001.
9. El Dally, N. H., Metwalli, F. I., & **Ismail, A.** (2023). Seismic modelling of the Upper Cretaceous, Khalda oil field, Shushan Basin, Western Desert, Egypt. Modeling Earth Systems and Environment, 1-18. <https://doi.org/10.1007/s40808-022-01497-1>
10. El Dally, N. H., Youssef, M. S., Abdel Aal, M. H., **Ismail, A.**, & Metwalli, F. I. (2022). 3D basin and petroleum systems modeling in Shushan Basin, Western Desert, Egypt. Modeling Earth Systems and Environment, 1-18. <https://doi.org/10.1007/s40808-022-01559-4>
11. Gammaldi, S., **Ismail, A.**, & Zollo, A. (2022). Fluid Accumulation Zone Inferred by Seismic Attributes and Amplitude Versus Offset Analysis at the Solfatara Volcano,Campi Flegrei, Italy. Front. Earth Sci. 10:866534. <https://doi.org/10.3389/feart.2022.866534>
12. **Ismail, A.**, Ewida, H. F., Nazeri, S., Al-Ibiary, M. G., & Zollo, A. (2022). Gas channels and chimneys prediction using

artificial neural networks and multi-seismic attributes, offshore West Nile Delta, Egypt. *Journal of Petroleum Science and Engineering*, 109349.

13. Edress, N. A., Darwish, S., & **Ismail, A.** (2021). Geochemical characterization of the source rock intervals, Beni-Suef Basin, West Nile Valley, Egypt. *Open Geosciences*, 13(1), 1536-1551.
14. **Ismail, A.**, Ewida, H. F., Al-Ibiary, M. G., Nazeri, S., Salama, N. S., Gammaldi, S., & Zollo, A. (2020). The detection of deep seafloor pockmarks, gas chimneys, and associated features with seafloor seeps using seismic attributes in the West offshore Nile Delta, Egypt. *Exploration Geophysics*, 1- 21. <https://doi.org/10.1080/08123985.2020.1827229>
15. **Ismail, A.**, Gammaldi, S., Chiuso, T., & Zollo, A. (2020). Seismic imaging of the Solfatara crater (Campi Flegrei caldera, southern Italy): New evidence of the fluids migration pathways in the shallow structures. *Journal of Volcanology and Geothermal Research*, 404, 107005.
16. **Ismail, A.**, Ewida, H. F., Al-Ibiary, M. G., & Zollo, A. (2020). Integrated prediction of deep-water gas channels using seismic coloured inversion and spectral decomposition attribute, West offshore, Nile Delta, Egypt. *NRIAG Journal of Astronomy and Geophysics*, 9(1), 459-470.
17. **Ismail, A.**, Ewida, H. F., Al-Ibiary, M. G., & Zollo, A. (2020). Application of AVO attributes for gas channels identification, West offshore Nile Delta, Egypt. *Petroleum Research*.
18. **Ismail, A.**, Ewida, H. F., Al-Ibiary, M. G., Gammaldi, S., & Zollo, A. (2020). Identification of gas zones and chimneys using seismic attributes analysis at the scarab field, offshore, Nile Delta, Egypt. *Petroleum Research*, 5(1), 59-69.

UNDER REVIEW PUBLICATIONS

1. Evidence for active generation and seepage of sub-salt natural gas/condensate blend in the east offshore Nile Delta, Egypt: integrated geochemical, petrophysical, and seismic attribute approaches (**Accepted**).
2. The Unconventional carbonate reservoir of the Cenomanian-Turonian Bahloul Formation (North-Central Tunisia) and comparison with the Eagle Ford Group (Texas) (**Under review**).
3. Assessment of Multiple Machine Learning Techniques in Predicting Permeability and Porosity in Reservoirs and Aquifers (**Under review**).
4. Gas channels and chimneys detection using post-stack seismic attributes, Simian field, offshore West Nile Delta, Egypt (**Under review**).
5. Unsupervised machine learning-assisted identification of carbonate reef seismic facies in the Dangerous Grounds, Northwest Sabah, offshore Malaysia (**Under review**).

MORE INFORMATION

1. ORCID Number: <https://orcid.org/0000-0003-1167-0483>
2. LinkedIn: <https://www.linkedin.com/in/amir-ismail-ph-d-b45a5380/>
3. Google Scholar: <https://scholar.google.com/citations?user=Ksh04TsAAAAJ&hl=en>

REFERENCES

1. Prof. Aldo Zollo
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Head of the RISSC-Lab, Department of Physics E. Pancini, University of Naples Federico II, Italy.
2. Prof. Mohamed Ahmed
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Department of Physical and Environmental Sciences, Texas A&M University-Corpus Christi, Corpus Christi, Texas 78412, USA.
3. Prof. Amin Esmail Khalil
Email: amin_khalil@science.helwan.edu.eg
Head of Geology Department and Professor of Geophysics, Geology Department, Faculty of Science, Helwan University, Egypt.