

Abazar Mohamed Ahmed Daoud

Title: PhD Candidate – Earth Sciences

Current Address: 4028 Kardos Albert Utca, 17/A, Fsz 4, Debrecen, Hungary.

Address: Al-Azhari, Block 5, House 150, Khartoum, Sudan.

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Personal Profile

- A dedicated and research-oriented geology specialist with extensive experience in university-level teaching and academic supervision. Fluent in Arabic and highly proficient in English, with strong communication and analytical skills.
- Holds a B.Sc. in Engineering Geology from Red Sea University (2013) and a M.Sc. in Applied Geology from Alexandria University (2018). Currently pursuing a PhD in Earth Sciences at the University of Debrecen, Hungary, focusing on advanced geoscientific research and data-driven methodologies.
- Seeking an international research position (Academic Fellowship) where I can contribute to advanced geoscientific studies and collaborative research.

Education & Certificates

- **2023 - Until now:** PhD Candidate at Department of Mineralogy and Geology, University of Debrecen, Hungary.
- **2015 - 2018:** MSc in Applied Geology (First Class), Alexandria University, Faculty of Science, Department of Geology, Egypt.
- **2008 - 2013:** BSc (Honours) Engineering Geology (First Class), Red Sea University, Faculty of Earth Sciences, Department of Engineering Geology, Sudan.
- **2004 – 2007:** Secondary School Certificate, Science Division, Bahri Secondary School, Sudan, overall grade: 75.9%

Employment History

- **2023 – Present**
 - PhD. Student. Department of Mineralogy and Geology – University of Debrecen, Hungary.
- **2015 – Present**
 - Faculty of Earth Sciences – Red Sea University, Sudan
 - Lecturer in Engineering Geology, Petrology, Sedimentology, and Rock Mechanics
 - Former Teaching Assistant (2015-2018)
 - Head of Engineering Geology Department (2022-2024)
 - Head of Quality Accreditation Department (2020-2025)
 - Supervisor of undergraduate research and graduation projects 2022 – 2024: Head of Engineering Geology.
- **2014 – 2015**
 - Engineering Geologist
 - Building and Road Research Institute – University of Khartoum, Sudan
 - Conducted soil and concrete sampling for engineering analysis
 - Assisted in geotechnical assessments and technical reporting

Lecturer & Former Teaching Assistant

- Red Sea University, Sudan.
- International University of Africa

Responsibilities:

- Began as a Teaching Assistant, supporting tutors and students during lectures, tutorials, and practical sessions.
- Promoted to Lecturer, delivering core undergraduate courses including Fundamentals of Geology, Engineering Geology, Geohazards, Rock Mechanics, Sedimentology, Sedimentary rocks, Soil Mechanics, and Petrology.
- Appointed Head of the Quality Accreditation Department, contributing to academic program evaluation and quality assurance.

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- Currently teaching advanced Engineering Geology courses and supervising multiple research and graduation projects.

Skills Gained:

- Developed strong independent and team-based teaching and research capabilities.
- Enhanced professional communication skills in English, particularly in scientific and academic contexts.

Continuous Professional Development Conferences & Articles & Courses

2018 – Present Reviewer of technical articles for different high-qualified journals.

- 1) Satti, A. M., ElMakky, A. M., Khalil, K. I., Hassan, M. N. M., Rózsa, P., & **Daoud, A. M. (2026)**. Mapping and Genetic Interpretation of VMS-Related Gossans in the Tagotieb Region, Red Sea Hills, NE Sudan Using Multispectral Indices and Machine Learning Models. *Journal of African Earth Sciences*, 106171.
- 2) Kazem, M. M., Mohammed, F. A., **Daoud, A. M.**, & Buday, T. (2026). Uncertainty-Aware Groundwater Potential Mapping in Arid Basement Terrain Using AHP and Dirichlet-Based Monte Carlo Simulation: Evidence from the Sudanese Nubian Shield. *Water*, 18(8), 901.
- 3) **Daoud, A. M.**, Kazem, M. M., Novák, T., & Rózsa, P. (2026). Urban Expansion Amplifies Hydro-Saline Processes and Infrastructure Vulnerability in an Arid Coastal City: A Long-Term, Field-Calibrated Remote-Sensing Assessment. *Earth Systems and Environment*, 1-41.
- 4) Mohammed, M. A., **Daoud, A. M.**, Kazem, M. M., Mohammed, S. H., Szabó, N. P., & Szűcs, P. (2026). Geophysical and multi-criteria decision methods for delineating groundwater potential in coastal terrains: a study from Port Sudan. *Scientific reports*.
- 5) **Daoud, A. M.**, Abir, M. N. A., Kazem, M. M., Satti, A. M., Shebl, A., Mohamed, M. A., ... & Rózsa, P. (2025). Comprehensive hazard susceptibility assessment in Port Sudan city using AHP: emphasizing flash flood risk, soil moisture, and salinity dynamics. *Geomatics, Natural Hazards & Risk*, 16(1).
- 6) Mohammed, M. A., **Daoud, A. M.**, Eltijani, A., Mohieldain, A. A., Szabó, N. P., & Szűcs, P. (2025). Mapping rain-induced landslides in data-scarce conflict-affected regions using deep learning model: A study from the Jebel Marra Volcanic Massif, Sudan.
- 7) Abdelkader, M. M., **Daoud, A. M.**, Abdel-Gawad, A. G., & Csámer, Á. (2025). Improving landslide susceptibility mapping: The role of non-landslide sample selection in machine learning models. *Remote Sensing Applications: Society and Environment*, 101759.
- 8) Asghede, K. M., **Daoud, A. M.**, Mohammed, M. A., Genzebu, W., Kiflay, K. B., Pecsmány, P., & Vágó, J. (2025). Development of a litho-structural map for the Upper Mereb area, Eritrea, using multi-source remote sensing data and machine learning models. *Remote Sensing Applications: Society and Environment*, 101722.
- 9) **Daoud, A. M.**, Shebl, A., Nafi, M., Elrasheed, A. A., Csámer, Á., & Rózsa, P. (2025). Machine learning-based lithological mapping and mineral prospecting using hyperspectral and multispectral remote sensing in Wadi Halfa, north Sudan. *Journal of African Earth Sciences*, 105816.
- 10) **Daoud, A. M.**, Shebl, A., Abdelkader, M. M., Mohieldain, A. A., Csámer, Á., Satti, A. M., & Rózsa, P. (2025). Remote sensing and gravity investigations for barite detection in Neoproterozoic rocks in the Ariab area, Red Sea Hills, Sudan. *Remote Sensing Applications: Society and Environment*, 37, 101416.
- 11) **Daoud, A. M.**, Abdelkader, M. M., Sediek, K. N., Elsharief, A. M., Rashed, M. A., Elamein, A. M., ... & Rózsa, P. (2024). Relationship between petrography and geomechanical properties of the sandstone: A case study from Wadi Halfa, North Sudan. *International Review of Applied Sciences and Engineering*.
- 12) **Daoud, A. M.**, Elrasheed, A. A. M. A. A., & Rozsa, P. (2024). Landsat 8 and Sentinel 2 for Detecting Hydrothermal Barite Deposits in Red Sea Hills, Sudan. *A TÉRINFORMATIKÁBAN XV.*, 91.
- 13) Abdelmajeed, A. E. A., Ojani, M. R., Zeynab, K. C., **Daoud, A. M.**, Musa., M. M. M., Szabó, S. (2024). Spectra Analysis of PRISMA for Detecting Iron Alteration Zones Associated with Gold Mineralization in Red Sea Hills. NE Sudan. *A TÉRINFORMATIKÁBAN XV.*, 99.

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- 14) Barkat, A., Rahal, Z., Medjdoub, K., **Daoud, A. M.**, Mester, T., Chekima, H., & Bellila, A. (2024) Evaluating the Impact of Absorber Geometry on Solar Still Efficiency: A Comparative Study of Square and Round Absorbers. *International Journal of Energetica*.
- 15) Mamoun, E. E., El Zamzami, M. A., & **Daoud, A. M.** (2023). The effect of curing condition and use of additives on compressive strength of lime/pozzolana mortar. *Journal of Civil Engineering and Construction Technology*, 13(1), 1-6.
- 16) **Daoud, A. M.**, Rashed, M. A., Sediek, K. N., Elamein, A. M., & Elsharief, A. M. (2021). Petrography, diagenesis and Paragenesis of Wadi Halfa oolitic Ironstone Formation, North Sudan. *European Journal of Applied Sciences–Vol*, 9(3).
- 17) **Daoud, A. M.**, Rashed, M. A., Sediek, K. N., Elamein, A. M., & Elsharief, A. M. (2020). Barite Concretions in Wadi Halfa Oolitic Ironstone Formation, North Sudan. *Journal of Geography, Environment and Earth Science International*, 24(5), 51-64.
- 18) **Daoud, A. M.**, Rashed, M. A., Elsharief, A. M., Sediek, K. N., & Elamein, A. M. (2020). The geotechnical properties of the oolitic ironstone formation, Wadi Halfa, North Sudan. *Journal of Geology and Mining Research*, 12(1), 25-34.

Sep. 2018 – Present: Attend different regional and international conferences around the word:

Hungary, Slovakia, Czech Republic, Spain, Egypt, Saudi Arabia, and Sudan.

Daoud, A. M. A., Musaab A. A. Mohamed, Mohammed N M Hassan, Péter Rózsa.: PCA, clustering, and geo-AI-based sedimentological and petrographic analysis for depositional environment interpretation of Paleozoic–Mesozoic sedimentary sequences: evidence from Wadi Halfa, Northern Sudan. In: 15th Assembly of Petrology and Geochemistry, 2-4 October 2025. Nagyörszöny – Banská Štiavnica.

Daoud, A. M. A., Abdalah, E. M., Mohsen, S., Rózsa, P.: The influence of joints and bedding planes on the slope stability: case studies from highly fractured basement terrains and sandstone sedimentary rocks. 21st Meeting of the Central European Tectonic Studies Groups 21, 20, 2025.

Daoud, A. M. A., Rózsa, P.: Diagenetic Evolution of the Wadi Halfa Oolitic Ironstone Formation (Formerly Nubian Sandstone), Northern Sudan. In: Mediterranean Geosciences Union (MedGU) 4th annual meeting, MedGU, [Barcelona], 1, 2024. International

Daoud, A. M. A., Mohieldain, A. A., Abdelkader, M. M., Shebl, A., Shereif, A. S., Satti, A., Rózsa, P.: Integrated Multi-Sensor Remote Sensing and Geophysical Data for Barite Potential Mapping in Ariab Districts, Northeast Sudan. In: Mediterranean Geosciences Union (MedGU) 4th annual meeting, MedGU, [Barcelona], 1, 2024.

Daoud, A. M. A., Sediek, K. N., Rasheed, M., Elsharief, A. M., Elamein, A. M., Rózsa, P.: Petrography and diagenesis of barite concretions from Wadi Halfa, Sudan. In: Ahányi kö, annyi történet 14. Közéleti és Geokémiai Vándorgyűlés Előadás- és poszterkivonatok. Szerk.: Buday Tamás, Csámer Árpád, McIntosh Richard William, Molnár Kata, Virág Attila, HUN-REN Atommagkutató Intézet, Debrecen, 32, 2024. ISBN: 9789638321619

Daoud, A. M. A., Mutwakil, N., Rózsa, P.: Exploring Iron Ore and Barite Deposits through Multiscale Analysis: A Case Study in Wadi Halfa, North Sudan. In: 54. Meeting of Young Geoscientists - 54. Ifjú Szakemberek Ankétja: Absztrakt kötet, Magyar Geofizikusok Egyesülete, Magyarhoni Földtani Társulat, Eger, 18, 2024. ISBN: 9789638161239.

Daoud, A. M. A., Mohieldain, A. A., Abdelmajeed, A. E. A., Rózsa, P.: Landsat 8 and Sentinel 2 for Detecting Hydrothermal Barite Deposits in Red Sea Hills, Sudan. In: Az elmélet és a gyakorlat találkozása a térinformatikában XV.. Szerk.: Abriha-Molnár Vanda Éva, Debreceni Egyetemi Kiadó, Debrecen, 91-98, 2024. ISBN: 9789634906193. 22-23 May 2024.

Daoud, A. M. A., Mohieldain, A. A., Rózsa, P.: Lithological Mapping and Mineral Potentiality of the Tehilla Ring Complex, Northeastern Sudan: A Multi-sensor Remote Sensing and Gravity Data. In: Az elmélet és a gyakorlat találkozása a térinformatikában XVI.. Szerk.: Abriha-Molnár Vanda Éva, Debreceni Egyetemi Kiadó, Debrecen, 79, 2024. ISBN: 9789638161239. 22-23 May 2025.

Software Packages

I am competent in Arc-GIS, Envi, Google Earth Engine, ERDAS, Global Mapper, Google Earth, Dip, Un-wedge, gINT, SPSS, SEDSTAT, SEDPLOT, Microsoft Office, R Language, Origin, Python, and Past.

Soft Skills

- **Collaboration:** Demonstrated ability to work effectively within multidisciplinary research teams, contributing to joint problem-solving, data interpretation, and publication-oriented outcomes.

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- **Confidence & Initiative:** Approaches new research challenges with independence and a strong sense of responsibility, maintaining high-quality work standards under demanding academic and field conditions.
- **Communication & Negotiation:** Possesses strong written and verbal communication skills, enabling clear presentation of scientific results, constructive discussion with colleagues and supervisors, and effective coordination of research activities.

Professional Membership

I strive to develop continuously and professionally so, I am a member of the ISSM (International Society of Soil Mechanics) where I publish papers as well as keep up to date with trainings, conferences, and updates in the geology. I am also an active member of the faculty senate, research senate & university senate of the Red Sea University.

Profiles

<https://orcid.org/0000-0002-5932-2376>

<https://scholar.google.com/citations?user=GPjncF4AAAAJ&hl=en>

<https://tudoster.unideb.hu/hu/szerzok/4968>

https://www.researchgate.net/profile/Abazar-Daoud?ev=hdr_xprf

<https://www.linkedin.com/in/abazar-daoud-189009308/>

Contact referees

1) Dr. Péter Rózsa

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