Ali Abdalsalam

Assistant Lecturer – Geophysics

Damanhour, Egypt | +201552334320

Ali.Abdalsalam@sci.dmu.edu.eg | LinkedIn: https://www.linkedin.com/in/ali-abdalsalam-a68329157/

Objective

To pursue a PhD in hydro-geophysics or geophysical engineering, focusing on integrated electromagnetic and seismic imaging, machine-learning workflows, and field investigations.

Experience

Assistant Lecturer | Faculty of Science - Damanhour Univrsity (9/2021 – Present)

- Support teaching, guide students, and assist with field sessions.

Geophysical Operator | Geological consulting center at Damanhour (9/2021 – Present)

- **Ras El Hekma New City Development Survey:** Led field data acquisition using PASI MASW seismic equipment for geotechnical investigations, cavity detection, and subsurface characterization.

- **Karnak Temple Archaeological Survey:** Led field data acquisition using Mala GPR with 500 MHz and 100 MHz antennas for subsurface imaging and archaeological target detection at Karnak Temple.

- **New Nubariya Groundwater Survey:** Led fieldwork integrating Mala GPR, TDEM, EM34-3, and VLF-EM for well siting and subsurface modeling (master's thesis).

- **New University of El Alamein Coastal Survey:** Led seismic refraction and 100 MHz GPR surveys to guide coastal infrastructure design and geotechnical planning.

- **Silver-Sand Village Geotechnical Study:** Used 100 MHz GPR to detect subsurface cavities and provide construction safety recommendations.

- **El-Mogattam Landslide Assessment (Cairo):** Applied VLF-EM to assess hillside stability and recommend mitigation measures.

- **Elsalam Canal (Borg El Arab City):** Mapped concrete fractures and evaluated saline intrusion risks using 500 MHz and 800 MHz GPR.

- **Housh Eissa Archaeological Prospection:** Combined VES and Total Magnetic and Gradiometry surveys to support subsurface mapping .

- **Coastal Groundwater Drilling Site Investigation:** Led integrated VLF-EM and TDEM surveys to identify optimal drilling locations in seawater-intruded areas

Education

- **MSc in Geophysical Engineering, Damanhour University** **(09/2020 – 08/2024)**
  (CGPA 3.55/4, A+ Honors)
- **BSc in Geology/Geophysics, Damanhour University** **(09/2015 – 09/2019)**
  (CGPA 3.79/4, A+ Honors)

Certificates

IBM Machine Learning Track

1. Data Analysis with Python
2. Data Visualization with Python
3. Machine Learning with Python,
4. Python for Data Science and AI

Publications

Abdalsalam, A., Badran, O., Tarabees, E. A., & Younis, A. (2024). Integration of GPR and EMI Techniques for Engineering Applications in New Nubariya District, *Egypt. Blue Economy*, 2(2),2.2. https://doi.org/10.57241/2805-2994.1026

Abdalsalam, A., Elhamy A.Tarabees, Abdelrahman, K., Khaled Al-Kahtany, Younis, A., Abd-Elhamid, H. F., & Badran, O. (2025). Integrating electromagnetic methods to identify the groundwater-bearing zones, a case study of the New Nubariya city in the northwestern of Egypt. *All Earth*, *37*(1), 1–23. https://doi.org/10.1080/27669645.2025.2555076

Abdalsalam, A., Sheishah, D., Abdelsamei, E., Abdulhaq, H., Hegyi, A., & Sipos, G. (2026). *A Data-Driven Approach for Missing Well-Log Prediction Using KNN Regression*. Frontiers in Environmental Science (Environmental Informatics and Remote Sensing), Manuscript ID: 1789351. Received January 16, 2026; Accepted and currently in production.

Nawar, A., Badran, O., Hussein, H., Abdalsalam, A.*, & Tarabees, E. A. (2026). *Integrated Hydrochemical Assessment of Groundwater Salinization and Water Quality in the Western Nile Delta, Egypt*. Damanhour Journal of Pure and Applied Sciences, 2(1), 1–19. https://doi.org/10.21608/djpas.2026.466384.1010

Awards

- **Semi-Finalist, Imperial Barrel Award (AAPG) – Seismic & petrophysics**
- **Earth Science Department Award (2023) – Field leadership**

Skills

Python, ML models, field geophysics, mapping, MS Office

Software

ArcGIS, Surfer, ReflexW, Geolitix, Seismic Imager, Zond-TEM1D, RES2D, IP2WIN

Language

Arabic (Native), English (Excellent)