



DR. ADEL KOTB

ASSOCIATE PROFESSOR
OF APPLIED GEOPHYSICS

CONTACT

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SCIENTIFIC INFORMATION

- ✓ <https://orcid.org/0000-0002-8188-3188>
- ✓ <https://www.scopus.com/authid/detail.uri?authorId=55614316800>
- ✓ <https://www.webofscience.com/wos/author/record/V-1789-2018>

SKILLS

- ✓ Research and publication
- ✓ Class lectures
- ✓ Student assessments
- ✓ Academic advising
- ✓ Remote instruction
- ✓ Training
- ✓ Academic Accreditation
- ✓ Field Measurements.
- ✓ Professional Data Interpretation.
- ✓ Writing scientific reports.

Education

Faculty	University	Degree	Date
Science	Ain-Shams	Ph. D.	2013
Science	Al-Azhar	M. Sc.	2007
Science	Assiut	B. Sc.	2001

Employment History

Employer	Position	field	year
Helwan University	Associate professor	Geophysics	2022
Helwan University	Assistant professor	Geophysics	2015
Helwan University	Assistant Lecturer	Geophysics	2015
Desert Research Centre	Researcher	Geophysics	2013
Desert Research Centre	Assistant Researcher	Geophysics	2007
Desert Research Centre	Researcher Assistant	Geophysics	2002

Societies membership

Active Member of Society of Exploration Geophysicists (SEG) ID: 00000482467
Member of the Egyptian geophysical society (EGS) ID:1024
Member of the American Association of Petroleum Geologists (AAPG) ID: 10157580.
Member of the American geological society

Editorial Board Memberships and reviews

Journal Title	My Role
Journal of Applied Geophysics (Cairo)	Editor in Chief
Journal of Control and Systems Engineering Heliyon	Editorial Member
Journal of African Earth Sciences	Reviewer
Journal of Earth Science	Reviewer
Modeling Earth Systems and Environment	Reviewer
Arabian Journal of Geosciences	Reviewer
International Journal of Geosciences	Reviewer
Kuwait Journal of Science	Reviewer
American Journal of Space Science	Reviewer
Bulletin of Faculty of Science, Zagazig University	Reviewer

Faculty Activities

Description	Year
Geophysics program coordinator	2016 – 2017
Geology Department general coordinator	2017-2018& 2023
Deputy of Quality Assurance unite	2016- 2023
Advisor of AAPG-HUSC (our team won the north Africa 1st place and African 2nd place in IPA 2017)	2016 -2020
Advisor of Helwan University SEG student chapter	since 2017
Certified trainer at Faculty and Leadership Development Centre	since 2016
Supervision on the Students during Summer Training.	since 2016

Fields of Interest

The main area of interest is the application of geoelectrical and electromagnetic as well as Induced Polarization/Spectral Induced Polarization methods for geological, hydrogeological, environmental and geotechnical problems, as well as Mineral (Gold) exploration, with special emphasis on forward and inverse modelling techniques especially near surface and deep groundwater exploration, petrophysical and hydrogeological aquifer characterization and water management at arid, semi-arid and coastal aquifers as well as modeling electrical spectrometry of earth materials. Moreover, the application of integrated geophysical tools and joint inversion techniques for hydro-geophysical investigation.

Professional Summary

Focused in Applied and Environmental Geophysics Professor offering 9 years of success in academic roles. Supports students in exploring course content, degree paths and potential career choices. Guides progress through expertly crafted curriculum and continuous drive to provide equitable and engaging instruction.

Additional Information

- Since 2002, involved as a research team member of several national, international and private projects regarding application of geophysical methods for groundwater exploration, water management, aquifer characterization, desertification process monitoring, Sustainable development, engineering, geotechnical and environmental problems.
- Conducted intensive data acquisition, processing, modeling and interpretation of geoelectric and electromagnetic (VES, 2D/3D ERT, SP, IP/SIP, VLF, TDEM and MT). geomagnetic and seismic refraction measurements.
- Conducting private hydrogeological, environmental and geotechnical projects as a freelance Geologist/Geophysicist.

Publications

Paper title	Publisher	Journal name	Date
Integrating Radiometric and Aeromagnetic Data for Assessment of Geothermal Potential: A Case Study in Central Eastern Desert, Egypt using aeromagnetic data	 Springer	Acta Geophysica (accepted)	2024
Investigating Geothermal Resources in the Central Eastern Desert of red Sea, Egypt	 Springer	Journal of Earth System Science (accepted)	2024
Groundwater potentiality mapping: A case study in Baba and Sidri watersheds, South Sinai, Egypt	 Springer	Journal of African Earth Sciences https://doi.org/10.1016/j.jafrearsci.2023.105145	2024
Synthetic mixture of sand and shale: how conductor (shale) and saturation influence electrical characteristics	 Springer	Applied Water Science https://doi.org/10.1007/s13201-023-01981-8	2023
Utilizing shallow seismic reflection for mitigating seismic and Geo-environmental hazards in the development project of Gabal Ataqa Area, Cairo-Suez District, Egypt	 Springer	Scientific Reports https://doi.org/10.1038/s41598-023-43904-2	2023
Explore the Suitability of Rafah Coastal Aquifers for Sustainable Development Using Geophysics and Remote Sensing	 Springer	Advances in Geophysics https://link.springer.com/chapter/10.1007/978-3-030-73026-0_83	2022
Geophysical and Hydrogeological applications for groundwater evaluation, East El-Minia area, Upper Egypt	 Springer	Journal of African Earth Sciences https://doi.org/10.1016/j.jafrearsci.2021.104384	2021
Integrated remote sensing, VES, and TEM to evaluate the Rafah coastal aquifers for sustainable development—a case study	 Springer	Arabian Journal of Geosciences https://doi.org/10.1007/s12517-021-08106-y	2021
Utilizing ERT and GPR to Distinguish Structures Maleficence the Constructions in the New administrative Capital, Egypt.	 SciencePG Korea Publishing Group	Earth Sciences https://doi.org/10.11648/j.eart.20211005.15	2021
Near-surface structures elicitation from Aeromagnetic data of Northwest Nasser lake area, Egypt	 Taylor & Francis Taylor & Francis Group	Egy. J. Appl. Geophys. ISSN 1687-1251, Vol. 20, No. 1, March 2021, 69- 82.	2021
Application of Time Domain Electromagnetic Survey to Detect Fractured Limestone Aquifer in Desert Fringes, West Assiut, Egypt	 Springer	NRIAG Journal of Astronomy and Geophysics (TJAG)	2021
Shallow Aquifer Potentiality Using Resistivity and Electromagnetic Methods at Baqbaq area, Northwestern Coast, Egypt	 Springer		2020
Explore the Suitability of Rafah Coastal Aquifers for sustainable development using Geophysics and Remote Sensing	 Springer	 2 nd CONFERENCE OF THE ARABIAN JOURNAL OF GEOSCIENCES (CAJG) 25-28 NOVEMBER 2019, SOUSSE, TUNISIA	2019
Using GPR, ERT and SSR to Detect the Shallow Subsurface Structures in the New Administrative Capital, Egypt.	 EGU European Geosciences Union	Geophysical Research Abstracts	2019
Groundwater condition based on geoelectrical technique and Dar Zarrouk parameters between El Alamein and El Dabaa - Egypt	 Springer	Arab J Geosci (2018) 11: 596. https://doi.org/10.1007/s12517-018-3947-y	2018
Exploring The Groundwater Possibilities In Wadi West Komombo-The Desert Fringes Of Aswan Governorate.	 IOSR Journals International Organization of Scientific Research	Journal of Applied Geology and Geophysics Volume 6, Issue 3 Ver. III (May. – June. 2018), PP 33-44	2018
Using Forward Modeling in Calculating the Shortest Distance between the Shot Point and the First Geophone That Senses the Refracted Head Waves	 IJGES	INT. J. OF GEOL. & EARTH SCI., ISSN 2395-647X WWW.IJGES.COM Vol. 4, No. 2,	2018
Geoelectrical Contribution to Delineate the Groundwater and Subsurface Structures on Tushka area, Egypt.	 Springer	NRIAG Journal of Astronomy and Geophysics http://doi.org/10.1016/j.nrjag.2017.10.003	2017
Impact of the geological structures on the groundwater potential using geophysical techniques in West Bani Mazar area, El Minia - Western Desert, Egypt	 Springer	Journal of African Earth Sciences 130 (2017) 161-173, http://dx.doi.org/10.1016/j.jafrearsci.2017.03.024	2017
Integrated geophysical study to explore the groundwater in the tectonic plain between Wadi El Mahash and Wadi Um Markhah, Southwest Sinai, Egypt	 Springer	Arabian Journal of Geosciences, ISSN 1866-7511, Volume 7, Number6,	2014
Land Magnetic Studies for Delineating the Basement Relief and Subsurface Structure in Tushka, South Egypt	 ASSIUT UNIVERSITY	ASSIUT UNIV. J. OF GEOLOGY 41(2), P-P	2012

There are 7 papers under review Now in the international Journals.

Conferences, Training courses, and Workshops attendance

Name	Location	Type	year
1 st international Science Conference (Science & sustainability)	Helwan University	<i>Conference</i>	2023
Journal Editor 1	Online	<i>workshop</i>	2023
Successful Pre-submission Publishing Strategies	Online	<i>workshop</i>	2023
International congress on Water Technology	Cairo	<i>Conference</i>	2023
Mendeley citation Manager and academic social network	Online	<i>workshop</i>	2021
13 th International Geological Conference	Jeddah – Saudi Arabia	<i>Conference</i>	2020
2 nd Conference of the Arabian Journal of Geosciences	Sousse - Tunisia	<i>Conference</i>	2019
External Review: Faculties and Institutes of Higher Education	<i>National Authority for Quality Assurance and accreditation of Education (NAQAAE)</i>	<i>Training course</i>	2019
Program/ Course Specifications and Assessment of Intended Learning Outcomes (ILOs): Faculties and Institutes of Higher Education	<i>(NAQAAE)</i>	<i>Training course</i>	2019
Self- Evaluation: Faculties and Institutes of Higher Education	<i>(NAQAAE)</i>	<i>Training course</i>	2019
Strategic planning: Faculties and Institutes of Higher Education	<i>(NAQAAE)</i>	<i>Training course</i>	2019
Egyptian geophysical society (EGS) Conference	<i>EGS</i>	<i>Conference</i>	2019
The Arab conference on Astronomy and Geophysics (6th Assembly)	<i>NRIAG</i>	<i>Conference</i>	2018
The Microtremor HVSR Method and its Applications	<i>NRIAG</i>	<i>workshop</i>	2018
Research Quality and performance	<i>EKB with Clarivate Analytics</i>	<i>workshop</i>	2018
Research Funding and Collaboration	<i>EKB with Clarivate Analytics</i>	<i>workshop</i>	2018
Egyptian geophysical society (EGS) Conference	<i>EGS</i>	<i>Conference</i>	2017
The Arab conference on Astronomy and Geophysics (5th Assembly)	<i>NRIAG</i>	<i>Conference</i>	2016
Egyptian geophysical society (EGS) Conference	<i>EGS</i>	<i>Conference</i>	2016
Announcement on the 3 rd Edition of Accreditation Guide for Faculties and Institutes of Higher Education.	<i>Helwan university</i>	<i>workshop</i>	2016
Developing the skills of users of remote sensing technologies to download and manipulate satellite images with high differential ability.	<i>League of Arab States- Arab organization for Agricultural Development</i>	<i>Training course</i>	2012
Developing the skills of remote sensing technologies users to monitor and analyze data through radiometer.	<i>League of Arab States- Arab organization for Agricultural Development</i>	<i>Training course</i>	2012

Teaching

Course Name	Term	Program/level /Faculty	Academic year
Environmental Geophysics	2nd	Geophysics/4th level/Science	2021/2022 till now
Paleomagnetism (Practical)	2nd	Geophysics/4th level/Science	2014/2015
Geodesy (Practical)	2nd	Geophysics/4th level/Science	2014/2015
General Geophysics 2 (Practical)	2nd	Geology/ 3rd level / Science	2014/2015
General Geophysics 1 (Practical)	1st	Geology/ 3rd level / Science	2015/2016
Mathematical Geophysics 1 (Practical)	1st	Geophysics/4th level / Science.	2015/2016
Spectral Analysis (Practical)	1st	Geophysics/4th level / Science.	2015/2016
Isotope Geophysics	2nd	Geophysics/2nd level/ Science	2015/2016
Applied Geophysics	1st	Pre-master	From 2016 to 2019
Theoretical Geophysics 1	1st	Geophysics/2nd level/ Science	2016/2017 till now
Computer Application in Geophysics	1st	Geophysics/2nd level / Science	2016/2017
Mathematical Geophysics 1	1st	Geophysics/4th level / Science	From 2016 to 2019
General Geophysics 2	2nd	Geology/ 3rd level / Science	From 2016 to 2022
Geophysics	2nd	Chemistry-Geology/3rd level / Science	2016/2017
Theoretical Geophysics 2	2nd	Geophysics/2nd level / Science	From 2016 till now
Mathematical Geophysics 2	2nd	Geophysics/4th level / Science	From 2015 To 2019
General Geophysics 1	1st	Geology/ 3rd level / Science	2016/2017 2017/2018
Geophysics 1 (in Arabic)	1st	Geology-Biology/4th level/ Education	From 2018 to 2021
Geophysics 2 (in Arabic)	2nd	Geology-Biology/4th level / Education	From 2018 Till now
Geophysics (in Arabic)	2nd	Biology - Geology /4th level / Education	2019/2020

References

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