

Scientific and Technical Curriculum Vitae

Mohamed Ahmed Shokry Youssef



A. Contact Information

Name : MOHAMED AHMED SHOKRY YOUSSEF
Date of Birth : 11st Feb., 1980.
Place of Brith : AL Kuwait.
Nationality : Egyptian.
Title : Professor of Applied Geophysics, Exploration Division, Nuclear Materials Authority (NMA), Egypt.
Marital Status : Married (+3 Children).
Languages : Arabic and English.
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B. Mohamed A. Shokry Youssef

- Head of the ground geophysics Department, Exploration Division, NMA, Egypt.
- Geophysicist with more than 23 years-experience in the application of geophysical techniques in mineral exploration, groundwater exploration, engineering and environmental applications.
- Specialized in shallow Seismic Refraction, Electrical Resistivity, Magnetic, Radiometric, GPR and Electromagnetic techniques with sound knowledge in other geophysical methods.
- Over 70 published papers and internal reports in various geophysical disciplines, involving mineral prospecting, groundwater studies and site selection investigations.

C. Qualifications

1. Ph.D. in applied geophysics, Faculty of Science, Ain Shams University, Cairo, Egypt, Oct. 2010.

Title of the Thesis: “Goelectric and Shallow Seismic Investigations for the Assessment of Radioactive Mineral-Bearing Horizon in North Ras Millan, Southern Sinai, Egypt.”

2. M. Sc. in applied geophysics, Faculty of Science, Cairo University, Geiza, Egypt, Feb., 2007.

Title of the Thesis: “Shallow Seismic and Goelectric Investigations for the Assessment of Radioactive Mineral-Bearing Horizon in Wadi Al Seih-Baba Area, Southwestern Sinai, Egypt.”

4. Pre-master courses: Seismic exploration. Faculty of Science, Cairo University, Geiza, Egypt, 2004, Grade: very good.

5. Diploma: Seismic exploration. Faculty of Science, Cairo University, Geiza, Egypt, 2003, Grade: Distinction.

6. Pre-master courses: Structure Geology. Faculty of Science, Ain Shams University, Cairo, Egypt, 2002, Grade: very good.

7. B. Sc. of Special geology. Cairo University, Egypt, May 2000, Grade: very good.

D. Main Fields of Interest

1. Mineral exploration: Electric Resistivity, Ground Magnetic, Electromagnetic, Seismic refraction and Radiospectrometric methods.
2. Groundwater exploration: Electric, Geo-radar “GPR” and EM methods.
3. Environmental and engineering geophysics: Electric Imaging, ground Magnetic, Georadar “GPR” and EM methods).

E. Practical Experience

1. Major and minor projects

1.1. Participation in mineral exploration projects in many localities in Egypt using different geophysical tools involving electrical resistivity, seismic, electromagnetic, radiometric/ gamma-ray spectrometric and magnetic.

1.2. Participation in various projects in Egypt such as:

a) East Owienat Project at southern western desert of Egypt, (2003-2005) for Ministry of Agriculture.

b) EIMinea Project at Samlout, Mallawy, Azemet Moubarak, Tona AIGabal and AIEdwa, Egypt (2004-2006) for EIMinea Governorate.

c) Sinai Project at Talet Saliem, Southwestern Sinai, Egypt (2007-2009).

d) Two external small projects at Jeddah project in KSA in 2005 and 2007.

e) Other small external projects at: Ain Sokhna. Alayat, Adfo and Wadi Al Natron.

- 1.3. Preparing the NMA young geophysicists and other scientific institutes on using various geophysical instruments, data acquisition, analysis, interpretation and writing the scientific reports.
- 1.4. Good experience in groundwater exploration acquired from sharing in several projects in Egypt and Kingdom of Saudi Arabia (KSA), using different geophysical methods.
- 1.5. Good experience in mineral exploration from acquired from sharing several projects in Egypt, Sudan, KSA and Libya. Using Shallow seismic refraction, Geoelectric resistivity, Ground penetrating radar and Horizontal loop electromagnetic techniques.
- 1.6. Good and longtime experience of geology, stratigraphic, structure setting of different environments such as Egypt, Sudan, KSA and Libya.
- 1.7. Highly Knowlagent of Mining regulations and permits within different countries Egypt, Sudan, KSA.
- 1.8. Project management and consulting in the mining sector as manger in geological and geophysical exploration within various countries as Egypt, Sudan, KSA.
- 1.9. Good planning for environmental sustainability in mining and preparationThe basic stages of the mining process from discovering the ore body in preparing a suitable grid and well evaluation different ores
- 1.10. Prospecting for mineral resources using the latest scientific techniques, working to evaluate and develop them, and proposing the best ways to exploit them.
- 1.11. Conducting regional surveys of mineralized areas and belts to identify areas with positive results at many different locations within Egypt, Sudan, KSA.
- 1.12. Conduct detailed studies of all mineral and industrial stone sites, develop programs and plans to evaluate those areas, prepare detailed maps of industrial minerals, and carry out the same tasks of mineral exploration for this type of ore, whether regional or detailed exploration.

1.13. Safety protocol as Wear personal protective equipment such as a helmet, glasses, protective shoes, and gloves. Ensure that ladders and platforms used for working are fixed at a height. Avoid working on heavy moving equipment such as large tractors and trucks. Providing first aid and firefighting procedures on site. Do not work alone, and it is necessary to have another person to help in emergency situations. Adhere to local safety rules and apply them strictly.

2. Experience in the use various geophysical instruments

2.1. Seismic Instruments: Mcseis-170 f of OYO, Japan, as a seismograph of 24 channels, dinosaurs and sledge hammer as a source generator of seismic waves, 14 or 28 Hz vertical and horizontal geophones as well as trigger and geophone cables. Strataview seismograph, Geometrics and Seistronic Rs-24.

Electrical Resistivity Instruments: Syscal-R1, Syscal-R2, Elrec-T, Elrec-6, VIP transmitter-3000, 5000, 10000 Watt, as well as T-VLF from IRIS Instruments, France.

2.2. Spectrometry Instruments: GS-512i radiospectrometer instrument from Geofyzika Brno, Czech Republic.

2.3. Ground magnetic instruments: PMG2 magnetometer from Geofyzika Brno, Czech Republic.

2.4. Electromagnetic instruments: Max-min electromagnetic and GS-856 magnetic from Scintrex, Canada.

2.5. Georadar instruments: ProEx ground penetrating radar (GPR) system from Mala Geosciences, Sweden. GSSI ground penetrating radar (GPR) system.

2.6. Surveying instruments: Global positioning system (GPS) German, sport track map of Magellan.

3. Experience in dealing with geophysical and computer software

3.1. Geophysical Software

a) **Winsism 20** (processing and interpretation of seismic data).

b) **Seisimager** (processing and interpretation of seismic data).

c) **SeisREFA** (processing and interpretation of seismic data).

d) **SIP** (processing and interpretation of seismic data).

e) **Zohdy and Resist** (processing, interpretation and modeling of electrical data).

f) **Winsev 6** (processing, interpretation, modeling and geoelectrical data).

- g) **IPI lite** (processing, interpretation, modeling and geoelectrical cross sections).
- h) **Res2d** (processing, interpretation modeling and geoelectrical cross sections).
- i) **MAXMIN utilities** version 1.42 correct data for systematic field procedure error or know instrument error and generate xyz data files.
- j) **Geosoft Oasis montaj** (plotting and inversion modeling for many geophysical data such as magnetic, gravity and electrical).
- k) **Sufer 23** (plotting and inversion modeling for many geophysical data such as magnetic, gravity, electrical and others).
- l) **Easy GPS and GPS utilize** (plotting point location and dumping data from GPS).
- m) **Reflex 4.5** (processing, interpretation and modeling of GPR data).
- n) **AutoCADS** (plotting point location and dumping data from GPS to extract subsurface utilities).

3.2. Computer Experience

- a) DOS, Fortran and Visual Basic.
- b) Microsoft Windows 95, 98, 2000, XP, Vista, 7, 8, 10 and 11.
- c) Microsoft office 97, 2000, XP, 2003, 2007, 2010, 2016 and 2021.
- d) Preparation of final scientific reports.

3.3. Training Courses

1. Training courses on the techniques of geophysical exploration, operation of geophysical instruments including ground magnetic, ground spectrometric, radon, CG3 gravity meter, Elrec-T resistivity meter, Syscal-R2 resistivity meter, VIP 3000 transmitter, Elrec-6 IP and Maximin electromagnetic instrument. Besides these courses include the training on interpretation software, which was executed in Exploration Division, Nuclear Materials Authority (NMA), Egypt.
2. Summer training (3 months) in 1996 at the Egyptian General Petroleum Corporation (EGPC) on the interpretation & processing data.
3. ICDL courses in GCUDC.

4. List of Publications:

(1) Scientific Reports

A. Before Ph.D.

A-1. Scientific Reports

- 1.1. SADEK, H.S.; EL KATTAN, E.M.; EL AASSY, IE; KHALIL, A.F.; ASSRAN, A.S.A.; ELSADEK, M.A.; ABU EL NAGA, H.S.O.; GOUDA, M.A.A.; NIGM, A.A.; ABDEL-HALEM, A.A.; EL TERB, R.A.; GHARIB, A.G.N; EL-TARRAS, M. M.; MIRA M. I.; HANAFY, S.M.M.; GHEITH, B.M. AND **OTHERS**, (2004): ELECTRICAL STUDIES FOR GROUNDWATER EXPLORATION, WEST OF EL-MINYA, WESTERN DESERT, EGYPT (2004): A REPORT SUBMITTED FROM NUCLEAR MATERIALS AUTHORITY (NMA) TO EL-MINYA GOVERNORATE. **(NO. 3012)**
- 1.2. **YOUSSEF, M.A.S.** AND OTHERS (2005): STUDY AND EVOLUTION PROJECT FOR DEVELOPMENT OF GROUND WATER RESOURCES IN EAST EL OWINAT AREA, SOUTHWESTERN DESERT, EGYPT. INTERNAL REPORT (2005). A REPORT SUBMITTED FROM NUCLEAR MATERIALS AUTHORITY (NMA) TO MINISTRY OF AGRICULTURE, CAIRO, EGYPT. **(CODE NO. 3023)**
- 1.3. VERTICAL ELECTRICAL SOUNDING IN AZIMA MUBARAK VILLAGE, WEST SAMALOUT, EL-MYNYIA, WESTERN DESERT, EGYPT (2006). A REPORT SUBMITTED FROM NUCLEAR MATERIALS AUTHORITY (NMA) TO EL-MINYA GOVERNORATE.
- 1.4. SADEK, H.S.; EL KATTAN, E.M.; KHALIL, A.F.; ASSRAN, A.S.A.; ELSADEK, M.A.; ABU EL NAGA, H.S.O.; GOUDA, M.A.A.; NIGM, A.A.; ABDEL-HALEM, A.A.; EL TERB, R.A.; GHARIB, A.G.N; EL-TARRAS, M. M.; MIRA M. I.; HANAFY, S.M.M.; GHEITH, B.M. **YOUSSEF, M.A.S** (2006). ELECTRICAL STUDIES TO EXPLORE THE GROUNDWATER IN NEW TONA EL-GABAL VILLAGE, WEST MELAWY, EL-MYNYIA. A REPORT SUBMITTED TO EL-MINYA GOVERNORATE **(CODE NO. 3010)**.
- 1.5. GHEITH, B.M.; AMIN, M.R; **YOUSSEF, M.A.S** AND OTHERS (2007): SHALLOW SEISMIC REFRACTION STUDIES IN NORTHWESTERN EL-MINYA, EGYPT (2007). A INTERNAL REPORT FROM NUCLEAR MATERIALS AUTHORITY (NMA). **(CODE NO. 3011)**.
- 1.6. RABEL, S.I.; KHALIL, A.F.; ASSRAN, A.S.A.; NIGM, A.A., **YOUSSEF, M.A.S;** YOUSSEF R.A (2007): APPLICATION OF ELECTRICAL RESISTIVITY METHODS TO EXPLORE THE GROUNDWATER IN THE SITE OF THE EGYPTIAN GYPSUM COMPANY (PLACO) IN EL-GHORBANAIAT. A REPORT SUBMITTED FROM NUCLEAR MATERIALS AUTHORITY (NMA) TO THE EGYPTIAN GYPSUM COMPANY IN EL-GHORBANAIAT. **(CODE NO. 3265)**.
- 1.7. EL SERAFE A.M.; RABEL, S.I.; KHALIL, A.F.; ELSADEK, M.A; ABU EL NAGA, H.S.O.; GOUDA, M.A.A.; NIGM, A.A.; ABDEL-HALEM, A.A.; EL

- TERB, R.A.; GHARIB, A.G.N; EL-TARRAS, M. M.; MIRA M. I.; AMIN M.R.; **YOUSSEF, M.A.S.**; YOUSSEF R.A (2009)_GROUND GEOPHYSICAL INVESTIGATION OF ABU RUSHEID AREA, SOUTH EASTERN DESERT, EGYPT. A CONFIDENTIAL REPORT, NUCLEAR MATERIALS AUTHORITY, CAIRO, EGYPT (2009). (**CODE NO. 3165**).
- 1.8. EL SERAFE A.M.; RABEI, S.I.; KHALIL, A.F.; ELSADEK, M.A; ABU EL NAGA, H.S.O.; GOUDA, M.A.A.; NIGM, A.A.; ABDEL-HALEM, A.A.; EL TERB, R.A.; GHARIB, A.G.N; EL-TARRAS, M. M.; MIRA M. I.; AMIN, M.R.; **YOUSSEF, M.A.S.**; YOUSSEF R.A (2008):GROUND GEOPHYSICAL INVESTIGATION OF SILA AREA, SOUTHERN EASTERN DESERT, EGYPT. CONFIDENTIAL REPORT, NUCLEAR MATERIALS AUTHORITY, CAIRO, EGYPT. (**CODE NO. 3204**).
- 1.9. EL SERAFE A.M.; RABEI, S.I.; KHALIL, A.F.; ASSRAN, A.S.A.; EL-TARRAS, M. M.; ABDEL RAHEIM, RM; ABDEL RABOU A. M.; **YOUSSEF, M.A.S** (2009) APPLICATION OF ELECTRICAL RESISTIVITY METHODS FOR DETERMING THE SHAPE, DEPTH AND THICKNESS OF UM BOGMA FORMATION, TALET SALIM AREA, SOUTHWESTERN SINAI, EGYPT. NUCLEAR MATERIALS AUTHORITY, CAIRO, EGYPT. (**CODE NO. 3250**).
- 1.10. EL SERAFE A.M.; RABEI, S.I.; KHALIL, A.F.; ELSADEK, M.A; ABU EL NAGA, H.S.O.; GOUDA, M.A.A.; NIGM, A.A.; ABDEL-HALEM, A.A.; EL TERB, R.A.; GHARIB, A.G.N; EL-TARRAS, M. M.; MIRA M. I.; AMIN, M.R.; **YOUSSEF, M.A.S.**; YOUSSEF R.A.; ZAIMAH, M.A. (2010): GROUND GEOPHYSICAL INVESTIGATION OF SILA AREA, SOUTH EASTERN DESERT, EGYPT, (PHASE III), (2010-2011). (**CODE NO. 3209**).
- 1.11. EL SERAFE A.M.; RABEI, S.I.; KHALIL, A.F.; ELSADEK, M.A; ABU EL NAGA, H.S.O.; NIGM, A.A.; EL TERB, R.A.; MIRA M. I.; AMIN, M.R.; **YOUSSEF, M.A.S.**; YOUSSEF R.A.;(2010): GROUND GEOPHYSICAL INVESTIGATION OF ABU RUSHID AREA, SOUTH EASTERN DESERT, EGYPT, (PHASE III) (**CODE NO. 3191**).

A. 2. Scientific Papers

- A.2.1. Sharafeldin, Sh. M., Elkattan, E. I. M., Nigm, A. A., El Shamy, A. and **YOUSSEF, M.A.S.**,(2007): Shallow Seismic Refraction and Geoelectric Resistivity Investigations of Subsurface Occurrence of The Um Bogma Mineralization Bearing Horizon, Wadi Al-Seih, Baba, Sinai, Egypt. THE EGYPTIAN GEOPHYSICAL SOCIETY.
- A.2.2. El Kattan, E. M., Nigm, A. A., Sharafeldin, Sh. M., El Shamy, A. S. and **YOUSSEF, M.A.S.**, (2007): Ground Gamma-Ray Spectrometric Study in Wadi El Seih-Baba Area, Southwestern Sinai, Egypt. THE EGYPTIAN GEOPHYSICAL SOCIETY
- A.2.3. Abu El-Ata, A.S., Shokry, M.M.F., Nigm, A.A., Khalil, A.F., and **YOUSSEF M.A.S.**, (2009): Geoelectric and Shallow Seismic Refraction Investigations for Assessment of The Water Aquifers in North Ras Millan Area, Southern Sinai Peninsula, Egypt. THE EGYPTIAN GEOPHYSICAL SOCIETY.

A.2.4. Nigm A. A., Khalil A.F., Abu El-Ata A. S. A., Shokry, M.M.F. and **YOUSSEF M.A.S.**, (2009): Structural Pattern of North Ras Millan Area, Southern Sinai Peninsula, Egypt, as Deduced from Ground Magnetic Survey. THE EGYPTIAN GEOPHYSICAL SOCIETY

B. After Ph.D.

B.1. List of scientific reports

B.1.1 EL SERAFE A.M.; RABEL, S.I.; KHALIL, A.F.; ELSADEK, M.A; ABU EL NAGA, H.S.O.; GOUDA, M.A.A.; NIGM, A.A.; ABDEL-HALEM, A.A.; EL TERB, R.A.; GHARIB, A.G.N; EL-TARRAS, M. M.; MIRA M. I.; AMIN, M.R; **YOUSSEF, M.A.S.**; **YOUSSEF R.A.**; ZAIMAH, M.A. (2011): GROUND GEOPHYSICAL INVESTIGATION OF SILA AREA, SOUTH EASTERN DESERT, EGYPT, (PHASE IV). (**CODE NO. 3209**).

B.1.2 EL SERAFE A.M.; RABEL, S.I.; KHALIL, A.F.; ELSADEK, M.A; ABU EL NAGA, H.S.O.; NIGM, A.A.; EL TERB, R.A.; MIRA M. I.; AMIN, M.R; **YOUSSEF, M.A.S.**; **YOUSSEF R.A.**;(2010): GROUND GEOPHYSICAL INVESTIGATION OF ABU RUSHID AREA, SOUTH EASTERN DESERT, EGYPT, (PHASE IV), (2010-2011).

B.1.3 ELSADEK, M.A; ABU EL NAGA, H.S.O.; GOUDA, M.A.A.; GHITH B.M.; NIGM, A.A.; ABDEL-RAHEIM, A.A.; EL TERB, R.A.; GHARIB, A.G.N; EL-TARRAS, M. M.; MIRA M. I.; AMIN, M.R; **YOUSSEF, M.A.S.**; RADWAM M.M. AND AZIZ, R.N. (2013): GROUND GEOPHYSICAL INVESTIGATION OF GATTAR AREA, NORTH EASTERN DESERT, EGYPT, (2012-2013). (**CODE NO. 3340**).

B.1.4 MOHAMED A. EL-SADEK, BAHER M. GHIETH, ABDELMOHSEN G. N. GHARIEB, MAMDOUH M. M. EL TARRAS, **YOUSSEF, M.A.S** ISLAM M. H. KHALIL AND HAYSAM F. A. HAMMAM (2016): GROUND MAGNETIC AND SPECTROMETRIC STUDIES ON WADI SKIAIT, SOUTHERN EASTERN DESERT, EGYPT. (**CODE NO. 3417**)

B.1.5 ASHRAF A. A. HASSAN, HAMDY I. E HASSANEIN, MAMDOUH M. M. EL TARRAS, RAGAB. M. ABDELRAHEM, MOATAZ E. EL-MANAWY, **YOUSSEF, M.A.S.**; MOSTAFA R.A. MOSTAFA AND ALI M E MOHAMED (2017): GROUND GEOPHYSICAL STUDIES OF NORTHEASTERN SILA AREA, SOUTH EASTERN DESERT, EGYPT. (**CODE NO. 3453**)

B.1.6 MOHAMED A. EL-SADEK, RAGAB. M. ABDELRAHEM, ASHRAF A. A. HASSAN, MOATAZ E. EL-MANAWY, **YOUSSEF, M.A.S.**, SALEM B. AHMED AND HUSSEIN F. A. MOHAMED (2019): PRELIMINARY GEOLOGICAL AND GEO-RADAR ALONG ANCIENT BERYL TUNNELS AT WADI EL GEMAL AREA, SOUTHERN EASTERN DESERT, EGYPT. (**CODE NO. 3486**)

B.1.7 RAGAB. M. ABDELRAHEM, MOATAZ E. EL-MANAWY, MOHAMED A. ELSADEK, ASHRAF A. HASSAN, **MOHAMED A. S. YOUSSEF**, MOSTAFA R. AMIN, MOSTAFA A. M. ZAEIMAH, REDA A. Y. EL QASSAS, MOHAMED H. M. YOUSSEF, ISLAM M. H. KHALIL AND YASSIN H. MOHAMED (2020): GROUND GEOPHYSICAL SURVEYS FOR GROUNDWATER AND MINERAL EXPLORATIONS OF AL-ALLOUGA URANIUM PROSPECT AREA, SOUTHWESTERN SINAI, EGYPT. (**CODE NO. 3489**)

B.2. List of scientific publications

- B.2.1.** S.T., EL KHODARY AND M.A.S., YOUSSEF, 2012 INTEGRATED POTENTIAL FIELD STUDY ON THE SUBSURFACE STRUCTURAL CHARACTERIZATION OF THE AREA NORTH BAHARIYA OASIS, WESTERN DESERT, EGYPT. ARAB JOURNAL GEOSCIENCE. ([HTTPS://DOI.ORG/10.1007/S12517-012-0590-X](https://doi.org/10.1007/s12517-012-0590-x))
- B.2.2.** M. A. S., YOUSSEF AND S.T., EL KHODARY, 2013 UTILIZATION OF AIRBORNE GAMMA RAY SPECTROMETRIC DATA FOR GEOLOGICAL MAPPING, RADIOACTIVE MINERAL EXPLORATION AND ENVIRONMENTAL MONITORING OF SOUTHEASTERN ASWAN CITY, SOUTH EASTERN DESERT, EGYPT. GEOPHYS. J. INT. (2013) 195, PP. 1689–1700. ([HTTPS://ACADEMIC.OUP.COM/GJI/ARTICLE/195/3/1689/628084](https://academic.oup.com/gji/article/195/3/1689/628084))
- B.2.3.** A. A. A., OTHMAN, TH. H., ABD EL HAFEZ, M. A. S., YOUSSEF AND M. E. M., SABRA, 2015: SHALLOW GEOPHYSICAL TECHNIQUES FOR GROUNDWATER AQUIFER EXPLORATION, AIN ALSOKHONA AREA, WEST GULF OF SUEZ, EGYPT. Researcher 2013;5(6), :30-41. ([HTTPS://WWW.RESEARCHGATE.NET/PUBLICATION/309352147](https://www.researchgate.net/publication/309352147))
- B.2.4.** M. I. MIRA, A. A. NIGM AND M. A. S., YOUSSEF, 2015 INTEGRATED GEOPHYSICAL INVESTIGATION TO IDENTIFY UM-BOGMA FORMATION IN WADI EL-DABBABAT, ABU-ZENEIMA AREA, SOUTHWESTERN SINAI, EGYPT. New York Science Journal 2012;5(12). [HTTPS://WWW.RESEARCHGATE.NET/PUBLICATION/284878910](https://www.researchgate.net/publication/284878910)
- B.2.5.** A. F. KHALIL, A. A. NIGM, A. E. SHATA AND M. A. S., YOUSSEF, 2015 INTERPRETATION OF URANIUM MIGRATION AND REMOBILIZATION USING GROUND SPECTROMETRIC DATA IN NORTH RAS MILLAN AREA, SOUTHERN SINAI, EGYPT. EGY. J. APPL. GEOPHYS., VOL. 14, NO. 1, MARCH 2015, PP. 15-31.
- B.2.6.** MOHAMED A. S. YOUSSEF, 2015, RELATIONSHIPS BETWEEN GROUND AND AIRBORNE GAMMA-RAY SPECTROMETRIC SURVEY DATA, NORTH RAS MILLAN, SOUTHERN SINAI PENINSULA, EGYPT. JOURNAL ENVIRONMENTAL RADIOACTIVITY, VOLUME 152, FEBRUARY 2016, PAGES 75-84. ([HTTPS://DOI.ORG/10.1016/J.JENVRAD.2015.09.008](https://doi.org/10.1016/j.jenvrad.2015.09.008))
- B.2.7.** MOHAMED A. S. YOUSSEF 2015, ESTIMATING AND INTERPRETATION OF RADIOACTIVE HEAT PRODUCTION USING AIRBORNE GAMMA-RAY SURVEY DATA OF GABAL ARRUBUSHI AREA, CENTRAL EASTERN DESERT, EGYPT. JOURNAL OF AFRICAN EARTH SCIENCES VOLUME 114, FEBRUARY 2016, PAGES 67-73. ([HTTPS://DOI: 10.1016/J.JAFREARSCI.2015.10.022](https://doi.org/10.1016/j.jafrearsci.2015.10.022))
- B.2.8.** T.H., ABDEL HAFEZ, MOHAMED A. S. YOUSSEF AND W. H., MOHAMED, 2015, UTILIZATION OF AIRBORNE GAMMA RAYSPECTROMETRIC DATA FOR GEOLOGICAL MAPPING, RADIOACTIVE MINERAL EXPLORATION OF GABEL UMM TINEIDBA AREA, SOUTH EASTERN DESERT, EGYPT. World Journal of Engineering 12(2), PP. 149-160. April 2015. ([HTTPS://DOI: 10.1260/1708-5284.12.2.149](https://doi.org/10.1260/1708-5284.12.2.149))
- B.2.9.** MOHAMED A. S. YOUSSEF, MOHAMED ELSADEK M. SABRA, ABDELAZIZ L. ABDELDAYEM C, ALAA A. MASOUD AND SALAH A. MANSOUR, 2017:

URANIUM MIGRATION AND FAVOURABLE SITES OF POTENTIAL RADIOELEMENT CONCENTRATIONS IN GABAL UMM HAMMAD AREA, CENTRAL EASTERN DESERT, JOURNAL OF ASTRONOMY AND GEOPHYSICS, VOL. 6 (2017) 368–378.

[\(\[HTTPS://DOI.ORG/10.1016/J.NRJAG.2017.10.004\]\(https://doi.org/10.1016/j.nrjag.2017.10.004\)\).](https://doi.org/10.1016/j.nrjag.2017.10.004)

B.2.10. AHMED A. NIGM, [MOHAMED A. S. YOUSSEF](#) AND FATMA M. ABDELWAHAB, 2018: AIRBORN GAMMA-RAY SPECTROMETRIC DATA AS GUIDE FOR PROBABLE HYDROCARBON ACCUMULATIONS AT AL-LAQITAH AREA, CENTRAL EASTERN DESERT OF EGYPT. APPLIED RADIATION AND ISOTOPES, 132, 38–46.

[\(\[HTTPS://DOI.ORG/10.1016/J.APRADISO.2017.10.053\]\(https://doi.org/10.1016/j.apradiso.2017.10.053\)\)](https://doi.org/10.1016/j.apradiso.2017.10.053)

B.2.11. [MOHAMED A. S. YOUSSEF](#), SHADIA A.M. SAAD AND HASSAN B. MOHAMED, (2019): ESTIMATING AND INTERPRETATING THE RADIOGENIC HEAT PRODUCTION, USING THE GAMMA-RAY LOGGING DATA OF THE LOWER CRETACEOUS ALAM EL-BUEIB FORMATION, NORTH WESTERN DESERT, EGYPT. EGYPTIAN GEOPHYSICAL SOCIETY JOURNAL, VOL. 17, NO.1 (2019), 1-9.

B.2.12. SHARAFELDIN M. SHARAFELDIN, KHALID S. ESSA, [MOHAMED A. S. YOUSSEF](#), HAKAN KARSLI, ZEIN E. DIAB, AND NILGUN SAYIL, 2019: SHALLOW GEOPHYSICAL TECHNIQUES TO INVESTIGATE THE GROUNDWATER TABLE AT THE GREAT PYRAMIDS OF GIZA, EGYPT GEOSCIENCE INSTRUMENTATION METHOD DATA SYSTEM, 8, 29–43.

[\(\[HTTPS://DOI.ORG/10.5194/GI-8-29-2019\]\(https://doi.org/10.5194/gi-8-29-2019\)\).](https://doi.org/10.5194/gi-8-29-2019)

B.2.13. [MOHAMED A. S. YOUSSEF](#), 2020: ORDER DIFFERENCES TO ENHANCE THE DELINEATION OF ROCK UNIT BOUNDARIES BY USING AEROSPECTROMETRIC DATA OF WADI AL MUSHASH AREA, CENTRAL EASTERN DESERT, EGYPT: A NEW APPROACH. APPLIED RADIATION AND ISOTOPES 155 (2020) 108938.

[\(\[HTTPS://DOI.ORG/10.1016/J.APRADISO.2019.108938\]\(https://doi.org/10.1016/j.apradiso.2019.108938\)\).](https://doi.org/10.1016/j.apradiso.2019.108938)

B.2.14. [MOHAMED A. S. YOUSSEF](#), 2020: GEOELECTRICAL ANALYSIS FOR EVALUATING THE AQUIFER HYDRAULIC CHARACTERISTICS IN AIN EL-SOUKHNA AREA, WEST GULF OF SUEZ, EGYPT, NRIAG JOURNAL OF ASTRONOMY AND GEOPHYSICS, VOL. 9, NO. 1, 85–98.

[\(\[HTTPS://DOI.ORG/10.1080/20909977.2020.1713583\]\(https://doi.org/10.1080/20909977.2020.1713583\)\).](https://doi.org/10.1080/20909977.2020.1713583)

B.2.15. MAHMOUD EL-HUSSEIN AND [MOHAMED A. S. YOUSSEF](#), 2020: *USE OF THE AIRBORNE MAGNETIC DATA FOR EDGE BASALT DETECTION IN QARET HAD EL BAHR AREA, NORTHEASTERN BAHARIYA OASIS, EGYPT. BULLETIN OF ENGINEERING GEOLOGY AND THE ENVIRONMENT.*

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B.2.16. SHARAFELDIN M. SHARAFELDIN, KHALID S. ESSA, [MOHAMED A. S. YOUSSEF](#), HAKAN KARSLI AND ZEIN E. DIAB, 2019: SHALLOW GEOPHYSICAL INVESTIGATIONS OF THE GROUNDWATER OCCURRENCES

- AFFECTED GIZA PYRAMIDS AREA, GIZA, EGYPT. EGYPTIAN JOURNAL APPLIED GEOPHYSICS, VOL. 16, NO. 1, MARCH 2017, 59-72
- B.2.16. ABU EL-ATA, A.S., YOUSIF, M.S., [YOUSSEF, M. A. S.](#), AND ELKOTB, A. S., 2016: GEOELECTRICAL ANALYSIS FOR EVALUATING THE AQUIFER HYDRAULIC CHARACTERISTICS OF DARB EL ARBEIN AREA, SOUTH WESTERN DESERT, EGYPT, EGYPTIAN JOURNAL APPLIED GEOPHYSICS, VOL. 15, NO. 2, SEPTEMBER 2016, 91-106.
- B.2.17. [YOUSSEF M. A. S.](#), ABD EL HAFEZ TH. H., MANSOUR S. A. AND EL-MOGHAZY M. A. M. M., 2018: SHALLOW GEOPHYSICAL STUDIES TO IDENTIFY THE GEOTECHNICAL PROPERTIES OF KUM AUSHEIM AREA, EL-FAYOUM, EGYPT.
- B.2.18. N.H. EL GENDY, [M. A. S. YOUSSEF](#), S. T. ELKHODARY AND TH. A. M. SHAMS EL DEEN, 2019 RADIOACTIVE HEAT PRODUCTION MAPPING IN G. UMM ANAB - G. EL DOB AREA, CENTRAL EASTERN DESERT, EGYPT.
- B.2.19. ZAID, S. M., [YOUSSEF, M. A. S.](#), SAAD, A. M., AND METWALLY, A. R., 2019: USING SHALLOW SEISMIC METHOD FOR EVALUATION OF THE FOUNDATION BEDS OF NEW CAIRO EXTENSION (ANDALUS AREA), EGYPT. BULLETIN OF FACULTY OF SCIENCE, ZAGAZIG UNIVERSITY. (IN PRESS)
- B.2.20. MOHAMED ELSADEK M. SABRA, ABDELAZIZ L. ABDELDAYEM, [MOHAMED A. S. YOUSSEF](#), ALAA A. MASOUD AND SALAH A. MANSOUR, 2019: DETERMINATION OF THE RADIATION DOSE RATE AND RADIOGENIC HEAT PRODUCTION OF NORTH GABAL ABU HIBBAN AREA, CENTRAL EASTERN DESERT, EGYPT. NRIAG JOURNAL OF ASTRONOMY AND GEOPHYSICS 2019, VOL. 8, NO. 1, 103–111.
[HTTPS://DOI.ORG/10.1080/20909977.2019.1617556](https://doi.org/10.1080/20909977.2019.1617556)
- B.2.21. [YOUSSEF M. A. S.](#), 2020, GEOELECTRICAL ANALYSIS FOR EVALUATING THE GROUNDWATER CHARACTERISTICS OF WADI EL MADAMUD AREA, SOUTHEAST LUXOR, EGYPT, JOURNAL OF TAIBAH UNIVERSITY FOR SCIENCE 2020, VOL. 14, NO. 1, 1514–526. [HTTPS://DOI.ORG/10.1080/16583655.2020.1838776](https://doi.org/10.1080/16583655.2020.1838776)
- B.2.22. FKIRIN, M.A., [YOUSSEF M.A.S.](#) AND EL-DEERY, M.F. 2021: MODELING AND IDENTIFICATION OF HIDDEN OBJECTS IN DYNAMIC SYSTEMS USING DIGITAL FILTERS. MENOUIA JOURNAL OF ELECTRONIC ENGINEERING RESEARCH. VOL. 30-NO.1 JAN2021.
- B.2.23. M. A. FKIRIN, [M. A. S. YOUSSEF](#) AND M. F. EL-DEERY, 2021, DIGITAL FILTERS APPLICATIONS ON AEROMAGNETIC DATA FOR IDENTIFICATION OF HIDDEN OBJECTS. BULLETIN OF ENGINEERING GEOLOGY AND THE ENVIRONMENT (2021) 80:2845–2858. [HTTPS://DOI.ORG/10.1007/S10064-020-02067-4](https://doi.org/10.1007/S10064-020-02067-4)
- B.2.24. SAFWAT S. GABR, HASSAN DIAB, THARWAT A. ABDEL FATTAH, MOHAMED F. SADEK, KHALIL I. KHALIL, [MOHAMED A.S. YOUSSEF](#), 2022, AEROMAGNETIC AND LANDSAT-8 DATA INTERPRETATION FOR STRUCTURAL AND HYDROTHERMAL ALTERATION MAPPING ALONG THE CENTRAL AND SOUTHERN EASTERN DESERT BOUNDARY, EGYPT. THE EGYPTIAN JOURNAL OF REMOTE SENSING AND SPACE SCIENCES 25 (2022) 11–20. <https://doi.org/10.1016/j.ejrs.2021.12.002>.

B.2.25. KHALID S. ESSA, MARC MUNSCHY, [MOHAMED A. S. YOUSSEF](#), EZZ EL DIN ABDEL HAKIM KHALAF, 2022, AEROMAGNETIC AND RADIOMETRIC DATA INTERPRETATION TO DELINEATE THE STRUCTURAL ELEMENTS AND PROBABLE PRECAMBRIAN MINERALIZATION ZONES: A CASE STUDY, EGYPT. MINING, METALLURGY & EXPLORATION.

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B.2.26. MOHAMED A. GENEDI AND [MOHAMED A. S. YOUSSEF](#). 2023, APPLICATION OF GEOPHYSICAL TECHNIQUES FOR SHALLOW GROUNDWATER INVESTIGATION USING 1D-LATERAL CONSTRAINED AND 2D INVERSIONS IN RAS GARA AREA, SOUTHWESTERN SINAI, EGYPT. Environmental Earth Sciences (2023) 82:120.

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5. Thesis Supervision

A. M.SC. thesis

- 1 2008-2011, [Mohamed Alsadek Sabra](#), Azher University- Faculty of Science “APPLICATION OF NEAR SURFACE GEOPHYSICAL TECHNIQUES TO SOLVE ENGINEERING SITES PROBLEMS IN AIN EL-SOKHNA AREA, EGYPT”
- 2 2010-2013, [Zein Alabedin Diab](#), Cairo University- Faculty of Science “GEOPHYSICAL STUDIES OF THE GROUND WATER OCCURRENCES AFFECTED THE GIZA PYRAMIDS AREA, GIZA, EGYPT”
- 3 2013-2015, [Wahed Hassan Mohamed Hassan](#), Azher University- Faculty of Science “ANALYSIS AND INTERPRETATION OF AIRBORNE MAGNETIC AND GAMMA-RAY SPECTROMETRIC SURVEY DATA OF GABEL UMM TINEIDBA AREA, SOUTH EASTERN DESERT, EGYPT”
- 4 2015-2017, [Mahmoud Ahmed Mahmoud Moghazy](#), Azher University- Faculty of Science “GEOPHYSICAL AND GEOTECHNICAL INVESTIGATION AT THE SOUTHERN OF AL-FAYUM CITY, EGYPT”.
- 5 2016-2019, [Tharwat Abdel Nabi Shams El Dein](#), Tanta University- Faculty of Science “ANALYSIS AND INTERPRETATION OF AIRBORNE SPECTROMETRIC AND MAGNETIC DATA OVER G. UMM ANAB - G. EL DOB AREA, CENTRAL EASTERN DESERT, EGYPT”.
- 6 2018-2020, [Mohamed Fathy El Derry](#), Monfiya University- Faculty of engineering "IDENTIFICATION OF HIDDEN OBJECTS IN INDUSTRY"
- 7 2018-2020, Ahmed Ragab Metwally, Zagazig University- Faculty of Science GEOENVIRONMENTAL STUDIES OF NEW CAIRO CITY EXTENTIONS, CAIRO, EGYPT.
- 8 2020-2024, [Ali Othman Mohamed Ali](#), Cairo University- Faculty of high graduate and statistics research “ENHANCED MACHINE LEARNING TO INVESTIGATE RADIOACTIVE MINERALIZATIONS”.

B. Ph.D. thesis

- 1 2015-2018, [Mohamed Alsadek Sabra](#), Tanta University- Faculty of Science “Radioactivity Hazard Zonation In Gabal Umm Hammad Area, Central Eastern Desert, Egypt: Integrating Gis And Remotely-Sensed Geophysical Data”
- 2 2020- 2023 now, [Mohamed Rashwan Hassan sharaf El-Din](#), MANSOURA University- Faculty of Science “Environmental Impact Assessment for Development in Gabal El-Syibai Area, Central Eastern Desert, Egypt: Using Airborne Geophysical Survey and Remote Sensing Technique”
- 3 2020- until now, [Tharwat Abdel Nabi Shams El Dein](#), Tanta University- Faculty of Science “Integrated geophysical studies for geological mapping, mineral exploration and assessment of radioactivity at the North Jabal Maghrabiyah area, Central Eastern Desert, Egypt”

- 4 2020- 2024, [Hend Ibrahim Abd El-mageed Ali Hassan](#), Damanhour University- Faculty of Science, “Integration study of Geophysical methods for Geological, Mineralization and Environmental Applications of Gabal kadabora – Gabal Umm Ghieg area, Central Eastern Desert, Egypt”

FIELD EXPLORATION EXPERIENCE

- 1- Participation in a project to evaluate black sand ores in sand dunes in the area between Arish and Rafah in North Sinai, Egypt and scientific reports were prepared in 2002 AD.
- 2- Working as a geophysicist in the ground geophysical mission that implemented the Authority’s contracts with Minya Governorate to conduct geophysical studies with the aim of studying and evaluating the development of water resources for the reclamation areas in the north of the governorate, “the areas of Adwa, Samalut, Maghagha, and Mallawi,” and reports were prepared.
- 3- Participating as a member of the research team in ground geophysical surveys (magnetic, radiospectrometry, electrical, and gravitational) for the East Uwaynat region in southern Western Desert during the seasons from 2003 AD to 2007 AD.
- 4- Participation in electrical studies to explore groundwater in the new village of Tuna al-Jabal - west of Mallawi, Minya Governorate, Egypt and scientific reports were prepared (2006).
- 5- Participation in the field geophysical mission in the Jabal Abu Rashid area, southwest of Marsa Alam, Egypt, which carried out field geophysical surveys using several geophysical methods, such as radiological surveying, magnetic surveying, electrical surveying (IP), and self-potential surveying (SP), in addition to implementing some electrical surveys to explore groundwater. In the region, scientific reports were prepared (2007-2008).
- 6- Participation in the field geophysical mission in the Sila region in the far south of the Eastern Desert of Egypt, which carried out field geophysical surveys using several different geophysical methods, such as radiological surveys, magnetic surveys, electrical surveys, gravitational surveys, seismic surveys, and self-potential (SP) surveys, in addition to implementing some electrical surveys to explore Groundwater in the region and scientific reports were prepared (2007–2008).
- 7- Participation in the field geophysical mission in the Talaat Selim area - southwest of Sinai - Egypt, which carried out a geoelectrical survey to determine the thickness and depth of the Umm Bejmah layer, which carries radioactive minerals (2009-2010).
- 8- Participation in the field geophysical mission in the Jabal Abu Rashid region, southwest of Marsa Alam, Egypt, which carried out field geophysical surveys using several geophysical methods, such as radiological surveys, magnetic surveys, electrical surveys, and self-potential (SP) surveys, in addition to implementing some electrical surveys to explore groundwater in the region. Preparing scientific reports (2010 - 2011).
- 9- Participation in the field geophysical mission in the Sila region in the far South of the Eastern Desert of Egypt, which carried out field geophysical surveys using several

- geophysical methods, such as radiological surveys, magnetic and electromagnetic surveys, and scientific reports were prepared (2011 - 2012).
- 10- Participation in the field geophysical mission in the Wadi al-Atshan region in the middle of the Eastern Desert of Egypt, which carried out field geophysical surveys using several geophysical methods, such as radiological surveys, magnetic surveys, and electrical surveys, and scientific reports were prepared (2011-2012).
 - 11- Participation with the work group that carried out field geophysical surveys using self-potential (SP) and electromagnetic (EM) methods in the Jabal al-Musikat region in the central Eastern Desert, and scientific reports were prepared (2012-2013).
 - 12- Participation with the work group that carried out field geophysical surveys using self-potential (SP), magnetic and radiation methods in the Jabal Abu Hadidah area in the central Eastern Desert (2014-2015).
 - 13- Participation with the working group that carried out field geophysical surveys using electromagnetic (EM) methods and electrical surveys in the Wadi Natash region in the central Eastern Desert, and scientific reports were prepared (2014-2015).
 - 14- Participation as a member in the ground geophysical mission in the Gatar region in the Eastern Desert, which carried out various ground geophysical surveys (magnetic, gravitational, electrical, seismic, and geophysical) in the region, and the report was prepared.
 - 15- Working as a geophysicist in the ground geophysical mission that implemented the Authority's contracts with the Urban Communities Authority to conduct geophysical studies to study the suitability of the soil to build residential areas on it in Cairo Governorate - the New 15th of May City - and scientific reports were prepared (2018).
 - 16- Working as a geophysicist in the ground geophysical mission that implemented the Authority's contracts with the Urban Communities Authority to conduct geophysical studies to study the suitability of the soil to build residential areas on it in Luxor Governorate - New Thebes City - and scientific reports were prepared (2018).
 - 17- Working as a geophysicist in the ground geophysical mission that implemented the authority's contracts with the Urban Communities Authority to conduct geophysical studies to study the suitability of the soil to build residential areas on it in New Rashid City - Buhaira Governorate, and the scientific report was prepared (2019 AD).
 - 18- Participation as a member in the ground geophysical mission in multiple areas in the Abu Rashid region - South of the Eastern Desert of Egypt, which carried out geophysical surveys and prepared the scientific report (2019).
 - 19- Participation as a member in the ground geophysical mission in the regions of South Sinai - Sinai, Abu Rashid - Halayeb, Eastern Desert (2019), implementing electrical surveys to study the possibilities of the presence of groundwater in the Al-Alouja region, South Sinai - Egypt, and the scientific report was prepared for this study.
 - 20- Working as a geophysicist in implementing electrical surveys to study the potential presence of groundwater in the areas of Al-Alamin Road (Beheira Governorate), the Garza area in the city of Al-Ayat (Giza Governorate), the Al-Lahyan area (South

- Sinai Governorate), and the Black Sands Project of the National Company for the Armed Forces (Beheira Governorate) For the benefit of others, their scientific reports were prepared in 2019.
- 21- Preparing the field work plan, processing data, and interpreting geological survey data for 24 areas **in the Qassim region, the Kingdom of Saudi Arabia,** and the scientific report for the second phase was prepared for the benefit of Aramco in 2021 AD.
 - 22- Participation in processing and interpreting data from a ground geodry survey to detect hidden subsurface objects at three different scales **in the Jazan region, the Kingdom of Saudi Arabia,** and the scientific report was prepared in 2021 AD.
 - 23- Preparing the field work plan, processing data, and interpreting geological survey data for two ranges **in the Khurais region in the Kingdom of Saudi Arabia,** and the scientific report was prepared in 2022 AD.
 - 24- Training students of various Egyptian universities in the exploration sector to use field geophysical devices in various specializations (to search for different minerals and groundwater) and measure them in the field within the Authority from 2005 until 2024.
 - 25- Participation as a member in the ground geophysical mission in areas of the Ghalioun Berrechid region - Beheira Governorate - Egypt, which carried out ground refraction seismic surveys to evaluate the thickness and depth of the black beach sediments and the thickness of the clay layer, and the scientific report (2022) was prepared.
 - 26- Preparing the field work plan, processing data, and interpreting geological survey data for 24 areas **in the Qassim region, the Kingdom of Saudi Arabia,** and the scientific report for the third phase was prepared for the benefit of Aramco in 2023 AD.
 - 27- Participation in processing and interpreting data from a ground geodry survey to detect hidden subsurface objects at six different scales for an industrial wastewater treatment plant **in the Jubail region, Kingdom of Saudi Arabia.** The scientific report was prepared in 2022 AD.
 - 28- Participation in data processing and interpretation of the ground geodry survey to detect underground building facilities in the Ottoman Bridge area and its environs in the Abha region, **Asir Governorate, Kingdom of Saudi Arabia.** The scientific report was prepared in 2023 AD.
 - 29- Preparing the field work plan, processing data, and interpreting geological survey data for three areas: **Abu Bakr Al-Siddiq Mosque area, the southern Khandaq area, the northern Khandaq area, Medina, Kingdom of Saudi Arabia.** The scientific report was prepared in 2023 AD.
 - 30- Preparing the field work plan, processing data, and interpreting geological survey data for nine **ranges in the Tanajib region, Kingdom of Saudi Arabia.** The scientific report was prepared in 2024 AD.