CURRICULUM VITAE

Personal details

***Name*:** **Mohamed Ahmed Khalil Aboushanab**

***Nationality*:** Portugal (EU), Egypt

Residency: Permanent resident in the U.S.A.

Present work: Assistant Geoscientist, Panhandle Research and Extension Center, University of Nebraska-Lincoln.

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Summary of experience

Over 20 years of experience in using Resistivity and Electromagnetic methods (ERT, SP, TDEM, FDEM, VLF, GPR, MT) for geophysical exploration (e.g., groundwater aquifers, mineral resources, subsurface structures, archaeological remains, and environmental and engineering problems). Also, experienced in gravity data acquisition, processing, and interpretation. In addition, I am knowledgeable of well logging, hydrogeology, hydrochemistry, and isotope hydrology.

I have a special interest in Hydro-geophysics. I am working to develop a new non-invasive geophysical technique and equipment to measure in-situ hydraulic conductivities instead of the current petrophysical-based methods.

Education

03/2007 - 02/2013: **Postdoctoral Fellow**, Center of Geophysics, Faculty of Science, University of Lisbon, Portugal. (currently, Instituto Dom Luiz-IDL).

04/2000 - 09/2002: **Ph.D. Geosciences**, Institute für Angewandte Geowissenschaften (Applied Geosciences) Justus Liebig University of Giessen, Germany.

Dissertation: *Hydrogeological and geophysical investigation of the groundwater salinity problem in Northern Sinai-Peninsula, Egypt.*

Supervisor*: Prof. Dr. Klaus Knoblich, and Prof. Dr. Wolfgang Jacoby.*

1993/1996: **M.Sc. In Geophysics**, Faculty of Science, Menufia University, Egypt.

M.Sc. Thesis: *New geoelectrical studies on the groundwater aquifer, Wadi El-Natrun area.*

Supervisor*: Prof. Dr. Maghawry Shehata Diab, and Prof. Dr. Abdel Rady Gh. Hassaneen*

1992-1993: **Pre-Master Diploma** (Applied Geophysics), Faculty of Science, Menufia University, Egypt.

1987-1991: **B.Sc. in Geology**, Faculty of Science, Menufia University, Egypt.

Work Experience- Research, Teaching, and industry

09/2021-Present: Assistant Geoscientist, Panhandle Research and Extension Center (PHREC), University of Nebraska-Lincoln.

04/2021 – 09/2021 Private consultant and Part-time Geophysicist in DOWL

09/2015 – 07/2020*:* Department of Geophysical Engineering, Montana Technological University.
Position: **Assistant Professor**.
Responsibilities:
Leading research and projects in shallow surface geophysical exploration.
Teaching related courses for graduate and undergraduate levels (e.g., electrical prospecting, petrophysics, Geophysical data inversion, Physics I and II).
Student supervision and advising.
Provide departmental, university, professional, and community services.

03/2013 -08/2015: Center of Geophysics, Faculty of Science, University of Lisbon, Portugal. (currently, Instituto Dom Luiz-IDL).
Position: **Project Researcher**
Responsibility: Mineral prospecting in "Polygon Albernoa" a project funded by E.P.O.S (Empresa Portuguesa de Obras Subterrâneas, S.A).

03/2007 - 02/2013: Center of Geophysics, Faculty of Science, University of Lisbon, Portugal. (currently, Instituto Dom Luiz-IDL).
Position: **Postdoctoral Fellow**.
Responsibilities:
Investigating the hydraulic conductivity-electrical resistivity relationship.
Participating in many research and industry projects.
Publishing of 22 research papers in peer-reviewed journals.
Measuring, processing, and interpretation of ERT, SP, TDEM, FDEM, MT, VLF, GPR, and Gravity.

08/ 2010*:* National Research Institute of Astronomy and Geophysics, (NRIAG) – Helwan-Cairo, Egypt.
Position: **Associate Professor**

10/ 2002 – 03/ 2007: National Research Institute of Astronomy and Geophysics (NRIAG), Helwan-Cairo, Egypt.
Position: **Researcher.**
Responsibilities:
PI and Co-PI in many geophysical research and industry projects.
Provide institutional, professional and community services.
Advising Ph.D. and master's students.

03/2002 - 09/2002: Institute für Angewandte Geowissenschaften (Applied Geosciences), Justus Liebig University of Giessen, Germany.
Position: **Student Research Assistant**
Responsibilities:
Assistance and participation in hydrogeological and hydro-chemical data analysis.

1996 - 2000: National Research Institute of Astronomy and Geophysics (NRIAG) – Helwan-Cairo, Egypt.
Position: **Assistant Researcher**.
Responsibilities:

Participating in many research and industry projects.
Acquisition and inversion of geophysical data for groundwater and archaeological exploration.

1994 - 1996: National Research Institute of Astronomy and Geophysics (NRIAG) – Helwan-Cairo, Egypt.
Position: **M.SC. Student**
Responsibilities:
Support field and laboratory geophysical, hydrogeological, and hydro-chemical measurements.

Teaching Experience

Academic session		Degree Subject	Institution
2015/09 - 2020/07	Fall 2015 Fall 2016 Fall 2017 Fall 2018 Fall 2019	Geoelectric prospection (Bachelor)	Montana Tech of the University of Montana, United States
2015/09 - 2020/07	Fall 2015 Fall 2016 Fall 2017 Fall 2018 Fall 2019	Geoelectric prospecting (Magister)	Montana Tech of the University of Montana, United States
2020 - 2020	Spring 2020	Geophysical data Inversion	Montana Tech of the University of Montana, United States
2016 - 2020	Spring 2016 Spring 2017 summer 2017 Spring 2018 Spring 2019	Petrophysics (Bachelor)	Montana Tech of the University of Montana, United States
2015 - 2020	Fall 2015 Summer 2019 Summer 2020	General physics , Physics-1 (Mechanics) (Bachelor)	Montana Tech of the University of Montana, United States
2015 - 2020	Spring 2015 Fall-Spring- Summer 2016 Fall-Spring - Summer 2017 Fall-Spring -Summer 2018 Fall-Spring- summer 2019 Fall-Spring-Summer 2020	General physics , Physics 2, (Heat, sound, light) (Bachelor)	Montana Tech of the University of Montana, United States
2016 - 2019	Summer 2016 Summer 2017 Summer 2018 Summer 2019	Summer Field Course (Bachelor)	Montana Tech of the University of Montana, United States

Projects

Projects in the USA

Geophysical investigation of Willow Creek dam-DOWL.

Geophysical investigation of Antilope dam-DOWL.

Geophysical investigations to determine the unknown extents of the abandoned Blackhawk gypsum mine, Blackhawk, SD (Phase 1 & 2)

Dewatering in Lolo-Creek. Joint project with the Montana Bureau of Mines and Geology (MBMG), 2016.
1D, 2D, 3D resistivity, SP, and Seismic refraction to investigate dewatering of Lolo-Creek, Missoula, Montana. Estimating aquifer hydraulic conductivity for some locations from Resistivity data.

Natural cold springs of Virginia City, Joint project with MBMG, 2017.
2D resistivity and VLF to investigate the tectonic, land sliding, natural cold springs, and hydrogeological system relationships.

Hydrogeological System near Sydney, Montana, Joint project with the MBMG, 2018.
Resistivity and TDEM to outline the aquifer thickness and bedrock.

Hydrogeological system near Thompson Park area, Butte, Montana, Restoration project, 2018, 2019, Geological Engineering Department, Montana Technological University.
2D resistivity, 3D resistivity, SP, and FDEM to investigate the hydrogeological system and the surface water- groundwater interaction.

Projects in Portugal

PTDC/CTE/GEX/72959/2006 (CRUDE)
Investigation of hydrocarbon contamination in Seixal area using geophysical data (Resistivity tomography, Electromagnetic in the time domain (TDEM) and frequency domain (EM34). This project is joint work with a team from LNEG, which is responsible for geology and hydrogeology.

PTDC/CTE-GIX/098538/2008 (CHAVESMT).
Investigation of the geothermal potential of the Chaves area-Northern Portugal, using Magnetotelluric method. Fundação da Faculdade de Ciências (FFC/FC/UL).
My role was the TDEM and Magnetotelluric data acquisition and processing.

PTDC/MAR/102030/2008 (FREEZE).
Freshwater discharges in the marine environment: characterization and evaluation of the impact on coastal ecosystems of the Algarve (Descargas de água doce em meio marinho: caracterização e avaliação do impacto nos ecossistemas costeiros do Algarve). A joint project with LNEG.
My role was the ERT, VES, and TDEM data acquisition, processing, and interpretation.

Pest-OE/CTE/UI0263/2011,
2D and 3D Resistivity data acquisition, processing, and interpretation in Suímo garnet-bearing dike (Lisbon Volcanic Complex, Portugal).

Mineral prospecting in "Polygon Albernoa ", 2013 -2015 funded by EPOS – (Empresa Portuguesa de Obras Subterrâneas, S.A) .
My role in this project was the Gravity, MT, VLF, SP data acquisition, processing, and interpretation.
Gravity data processing, 3D inversion, and 2D modeling.

COLT RESOURCES, INC. 2012
Acquisition, processing, and modeling of the resistivity survey carried out for Gold exploration at the "CONCESSÃO EXPERIMENTAL MINEIRA DA *Boa Fé*".
My role was the ERT and VLF data acquisition, processing, and interpretation.

EDP 2000 – 2010
An industry project with the Energias de Portugal (EDP) - a Portuguese electric utilities company- to carry out resistivity surveys for several locations of new power stations.
My role was 2D and 3D ERT data acquisition, inversion, and interpretation.

Projects in Egypt

Aswan High Dam Authority (2003-2005)
A three-year project to estimate water seepage from Nasser Lake (Egypt) by geophysical methods.
1D and 2D resistivity, VLF, TDEM, and Environmental isotopes.

Japanese- Egyptian project (2006)
Department of Environmental Systems, Graduate School of Frontier Sciences, University of Tokyo, and NRIAG.
I was the main coordinator of this project.
Analysis of recharge process of lake water to groundwater and possibility for sustainable usage of recharged water for local irrigation around the Lake Nasser, Egypt.
Resistivity, Groundwater samples collection and analysis, and Isotope analysis.

The General Egyptian Monumental Authority (2005)
Evaluating the environmental hazards in the Saida Zainab archeological site, Cairo. 2D resistivity and GPR

The General Egyptian Monumental Authority (1997-2000).
Investigating the environmental hazards in sphinx and pyramids area, Giza, Cairo.Resistivity, TDEM, and GPR

Egyptian Army (1998-2000)
Investigating the soil stability in Wadi Hoff area. Site characterization to define the safe roads, and tunnel detection.
Resistivity methods.

Professional Membership

American Geophysical Union (AGU)

Languages

Arabic (native), English (very good), Portuguese (good), German (fair).

List of Publications

Peer Reviewed Journal

(Graduate student)*

ORCID iD : https://orcid.org/0000-0001-9514-7184
https://scholar.google.com/citations?user=DWFmYpwAAAAJ&hl=en

1. * Kristen D. Prudhomme, **Mohamed A. Khalil**, Glenn D. Shaw, Marvin A. Speece, Katherine R. Zodrow and Tom Malloy: Integrated geophysical methods to characterize urban subsidence in Butte, Montana, U.S.A, Journal of Applied Geophysics, Volume 164, **May 2019**, Pp 87-105, https://doi.org/10.1016/j.jappgeo.2019.03.004

2. Farzamian M, Ribeiro, J., **Khalil, M**., Santos, F., Kashkouli, M., and Mendonca, J. Application of Transient Electromagnetic and audio-Magnetotelluric Methods for Imaging the Monte Real Aquifer in Portugal. Pure and applied Geophysics. **Oct. 2018.** Pp1-17, https://doi.org/10.1007/s00024-018-2030-7

3. **Khalil, M. A**., * Orubu, K., Rutherford, B., Speece, M., Santos Fernando, Farzamian, M. Integrated application of 2D resistivity and electromagnetic methods in locating a metallic–Sulfide deposit in Soap Gulch, Montana: A case study. Arabian Journal of Geosciences. **2018**. https://doi.org/10.1007/s12517-018-4130-1

4. * Mo Li, Xiaobing Zhou, Christopher H. Gammons, **Mohamed Khalil**, and Marvin Speece: Aeromagnetic and spectral expressions of rare earth element deposits in Gallinas Mountains area, Central New Mexico, USA. Interpretation, Vol. 6, No. 4, **November 2018,**
http://dx.doi.org/10.1190/INT-2017-0199.1

5. * Akpofure Orubu, **Mohamed A. Khalil**, * Bradley Rutherford, Glenn Shaw, Ali Gebril, and Camela Carstarphen: Geophysical investigation of dewatering in Lolo Creek, Southwest Missoula, Montana, USA. Journal of Applied Geophysics 155, **August 2018**, 149-161. https://doi.org/10.1016/j.jappgeo.2018.06.014.

6. **Mohamed A. Khalil**, Andrew Bobst and Jesse Mosolf: Utilizing 2D Electrical resistivity Tomography and Very Low Frequency Electromagnetics to Investigate the Hydrogeology of Natural Cold Springs Near Virginia City, Southwest Montana. Journal Pure and Applied Geophysics, **April 2018**, https://doi.org/10.1007/s00024-018-1865-2

7. Farzamian, M., Fernando A. Santos, and **Mohamed A. Khalil:** Constraining unsaturated hydraulic parameters using the Latin Hypercube sampling method and coupled hydrogeophysical approach. Pure and applied geophysics, **September 2017**.
https://doi.org/10.1007/s00024-017-1656-1

8. Francés, Alain Pascal; Ramalho, Elsa Cristina; Fernandes, Judite; Groen, Michel; Hugman, Rui; **Mohamed A. Khalil**; De Plaen, Joel; Monteiro Santos, Fernando: Hydrogeophysics contribution to the hydrogeological conceptual model of the Albufeira-Ribeira de Quarteira coastal aquifer (Algarve, Portugal). Hydrogeology Journal. **July 2015**. V., 23. P. 1553-1572, https://doi.org/10.1007/s10040-015-1282-x

9. Farzamian, M., Fernando A. Santos, and **Mohamed A. Khalil:** Estimation of Unsaturated Hydraulic Parameters in Sandstone Using Electrical Resistivity Tomography under a forced infiltration tracer experiment. Journal of Applied Geophysics, **2015**, V. 112, P. 175-189. https://doi.org/10.1016/j.jappgeo.2015.07.014

10. Elsa Ramalho, **Mohamed Khalil**, Judite Fernandes, Helena Amaral, and Fernando Monteiro Santos (2015): Geophysical assessment of contamination due to explosives in an abandoned facility towards its hydrogeological characterization. Environmental Earth Sciences**, 2015,** https://doi.org/10.1007/s12665-015-4070-y

11. **Mohamed A. Khalil**, Fernando M. Santos, Mohammad Farzamian, and Abeer Kenawy: 2-D Fourier transform analysis of the gravitational field of Northern Sinai Peninsula. Journal of Applied Geophysics, **2015**. https://doi.org/10.1016/j.jappgeo.2015.01.022

12. Mohammad Farzamian, Fernando A. Santos and **Mohamed A. Khalil**: Application of EM38 and ERT methods in estimation of saturated hydraulic conductivity in unsaturated soil. Journal of Applied Geophysics, **January 2015**, V. 112, P. 175–189. https://doi.org/10.1016/j.jappgeo.2014.11.016

13. **Mohamed A. Khalil**, Fernando M. Santos: Geophysical evidence for the hydro-tectonic origin of the Sabkha El Sheikh Zwayed Lake and the shallow fresh water supplies, Northern Sinai, Egypt. Near Surface Geophysics, **2015**, V. 13, P. 93-101. https://doi.org/10.3997/1873-0604.2014047

14. **Mohamed A. Khalil**, Fernando M. Santos, M. Farzamian: 3D gravity inversion and Euler deconvolution to delineate the hydro-tectonic regime in El-Arish area, northern Sinai Peninsula, Journal of Applied Geophysics. **2014**, V. 103, P. 104-113. https://doi.org/10.1016/j.jappgeo.2014.01.012

15. **Mohamed A. Khalil** and Fernando A. Monteiro Santos: 3D gravity inversion of Northern Sinai Peninsula, a case study**.** Pure and Applied Geophysics. **2014**, V. 171, P.1557-1569. https://doi.org/10.1007/s00024-013-0707-5

16. **Mohamed A. Khalil** and Fernando A. Monteiro Santos: 2D and 3D resistivity inversion of Schlumberger vertical electrical soundings in Wadi El Natrun, Egypt: a case study. Journal of Applied Geophysics, **2013**, V. 89, P.116-124**.** https://doi.org/10.1016/j.jappgeo.2012.11.014

17. **Mohamed. A. Khalil**, F. M. Santos, M. Cachão, P. E. Fonseca,J. Mata: 2D and 3D resistivity tomography of Suímo garnet-bearing dike (Lisbon Volcanic Complex, Portugal): a case study. Journal of Geophysics and Engineering**. 2013**, V. 10, P. 1-10**,** https://doi.org/10.1088/1742-2132/10/3/035013

18. **Mohamed A. Khalil**, Fernando M. Santos: On the depth to anomaly estimation using Karous and Hjelt filter in VLF-EM data. Arabian Journal of Geosciences, **2013**, Ms. No. AJGS-D-13-00104R1. https://doi.org/10.1007/s12517-013-1110-3

19. **Mohamed A. Khalil,** Abbas Mohamed Abbas, Fernando M. Santos, Usama Masoud, Hany Salah: Application of VES and TEM techniques to investigate sea water intrusion in Sidi Abdel Rahman area, northwestern coast of Egypt, Arabian journal of geosciences, **2012**, https://doi.org/10.1007/s12517-012-0564-z

20. Mohamed Metwaly, **Mohamed A. Khalil**, El Said Ragab: Tracing Subsurface Oil Pollutions Leakage using 2D electrical resistivity tomography. Arabian journal of geosciences, **2012,** https://doi.org/10.1007/s12517-012-0600-z

21. Abbas M. Abbas, **Mohamed A. Khalil**, Usama Massoud, Fernando M. Santos, Hany A. Mesbah, Ahmed Lethy, Mamdouh Soliman, El Said A. Ragab: The implementation of multi-task geophysical survey to locate Cleopatra Tomb at Tap-Osiris Magna, Borg El-Arab, Alexandria, Egypt ‘‘Phase II’’ , Journal of NRIAG, **2012**, http://dx.doi.org/10.1016/j.nrjag.2012.11.001

22. **Mohamed A. Khalil** and Fernando M. Santos: Comparative study between filtering and inversion of VLF-EM profile data, Arabian J. of Geosciences**, 2011,** https://doi.org/10.1007/s12517-010-0168-4

23. **Mohamed A. Khalil,** Elsa C. Ramalho, Fernando M. Santos: Using resistivity logs to estimate hydraulic conductivity of a Nubian sandstone aquifer in southern Egypt. Near Surface Geophysics, **2011, 9**, https://doi.org/10.3997/1873-0604.2011009

24. **Mohamed A. Khalil** and Fernando M. Santos: 2D resistivity inversion of 1D electrical-sounding measurement in deltaic complex geology: application to the delta Wadi El-Arish, northern Sinai, Egypt. Journal of Geophysics and Engineering, **2011,** V. 8, P. 422-433, https://doi.org/10.1088/1742-2132/8/3/003

25. **Mohamed A. Khalil** and Fernando M. Santos: Hydraulic conductivity estimation from resistivity logs: a case study in Nubian sandstone aquifer. Arabian journal of geosciences, **2011,** https://doi.org/10.1007/s12517-011-0343-2

26. *Usama Massoud, Fernando Santos, **Mohamed A. Khalil**, Ayman Taha, Abbas M. Abbas: Estimation of aquifer hydraulic parameters from surface geophysical measurements: a case study of the Upper Cretaceous aquifer, Central Sinai, Egypt. Hydrogeology Journal, **2010**, V.18, P. 699-710, https://doi.org/10.1007/s10040-009-0551-y

27. **Mohamed A. Khalil**, Abbas Mohamed Abbas, Fernando S. Monteiro, Hany Salah, and Usama Masoud: VLF-EM study for archeological Investigation of the Labyrinth mortuary temple complex at Hawara area, Egypt. Near surface geophysics**, 2010**, V. 8, P. 203-212, https://doi.org/10.3997/1873-0604.2010004

28. **Mohamed Ahmed Khalil**, Mahfooz A. Hafez, Fernando Monteiro Santos, Elsa C. Ramalho, Hany S.A. Mesbah and Gad M. El-Qady: An approach to estimate porosity and groundwater salinity by combined application of GPR and VES: a case study in the Nubian sandstone aquifer. Near surface Geophysics, **2010,** V. 8, P. 223-233, https://doi.org/10.3997/1873-0604.2010007

29. **Mohamed A. Khalil:** Real surface conductivity component as indicator of hydraulic conductivity, Arabian J. of Geosciences**, 2010**, https://doi.org/10.1007/s12517-010-0143-0

30. **Mohamed A. Khalil**, Fernando A. Monteiro Santos, Sameh M. Moustafa, and Usama M. Saad: Mapping water seepage from Nasser Lake (Egypt) using VLF-EM method - A case study. Journal of Geophysics and Engineering**. 2009,** V. 6, P. 101-110. https://doi.org/10.1088/1742-2132/6/2/001

31. **Mohamed A. Khalil** and Fernando M. Santos: Influence of Degree of Saturation in the Electric Resistivity–Hydraulic Conductivity Relationship, Surveys in Geophysics. **2009**, V. 30, P. 601-615. https://doi.org/10.1007/s10712-009-9072-4

32. Metwaly M., **Mohamed A. Khalil**, El-Said A. Al Said, and S. Osman: Hydrogeophysical study to estimate water seepage from the northwestern Lake Nasser, Egypt. Journal of Geophysics and Engineering. **2006**, V. 3, P. 1-7. https://doi.org/10.1088/1742-2132/3/1/003

33. Knoblich K., **Mohamed A. Khalil**, and U. Genge: Origin of salt-water intrusion using isotope analysis data, Sinai, Egypt. Giessener Geologische Schriften (GGS), **2003**, No.70. p. 113-147.

Book Chapter

Khalil MA, Santos FAM (2011) Influence of degree of saturation in the electric resistivity–hydraulic conductivity relationship. In: Dikinya O (ed) Developments in hydraulic conductivity research, 49–70, InTech, ISBN 978-953-307-470-2(282p)

Conferences

1- Kristen D. Prudhomme, **Mohamed A. Khalil**: Integrated geophysical methods to characterize urban subsidence in Butte, Montana, U.S.A**. AGU, 2019, San Francisco, USA.**

2- Rachel Hadley, Marvin Speece, **Mohamed A. Khalil**, Glenn Shaw, Robert Pal: Geophysical Survey of Blacktail Creek Beaver Mimicry Site near Butte, Montana, **AGU, 2019, San Francisco, USA.**

3- Orubu, K., and **Khalil, M**. A.**:** 2D and 3D resistivity imaging to study dewatering of Lolo creek, Montana USA: Symposium on the Applications of Geophysics to Engineering and Environmental Problems**. SAGEEP**, **2017, Denver, Colorado.**

4- Gebril, A., and **Khalil, M**. A.**:** Applying geophysical methods to estimate hydraulic parameters for the saturated zones in Lolo Creek, Montana: **National Ground Water Association (NGWA), 2017, Denver.**

5- **Khalil, M. A**., Santos, F. M., and Speece, M. A.: a static shift correction for 2-D resistivity data through frequency domain electromagnetic data: Symposium on the Applicants of Geophysics to Engineering and Environmental Problems, **SAGEEP, 2016., Denver, Colorado**

6- Elsa Ramalho**, Mohamed Khalil**, Judite Fernandes, Helena Amaral, Fernando Monteiro Santos: Contamination in the old SPEL facilities (Seixal): geophysical assessment contribution as an input towards its hydrogeological characterization. **10th seminar of subsurface water (ceminario sobre aguas subterneas), Evora, 9-10 April, 2015.**

7- Alain P. Francés, Elsa C. Ramalho, Michel Groen, **Mohamed A. Khalil**, Rui Hugman, Judite Fernandes, Fernando A. Monteiro Santos: Hydrogeophysics contribution to the development of hydrogeological conceptual model of coastal aquifers – Albufeira-Ribeira de Quarteira aquifer case study. **8ª Asemblea Hispano Portuguesa de Geodesia y Geofisica-EVORA -2014.**

8- M.T. Condesso de Melo; J. Fernandes; C. Neves; C. Miraldo Ordens; N. Barreiras; A. Vandenbohede; H. Amaral; E. Ramalho; M. João Batista; C. Gonçalves; J.A. Almeida; P. Quental; G. Brito; P. Viana; A.C. Gama; S. André; E. Silva; C. Granjeia; M. Inácio; M. Marques da Silva; C. Patinha; M. J. Senos Matias; **M. Khalil**; F. Santos; A. Danko; P. Sá Pereira: Applicacao de uma metodolgia multidiciplinar para a caracterizacao da contaminicos das aguas subterraneas por contaminantes organicos. Resultados preliminares e análise comparativa de dois casos de estudo (Estarreja e Seixal) no âmbito do projecto *CRUDE (FCT)*. **11º *Congresso da Água*, 6 a 8 de Fevereiro de 2012, Porto.**

9- **Mohamed A. Khalil1** and Fernando A. Monteiro Santos: An approach to estimate hydraulic conductivity from real surface conductivity component. **8 seminario sobre aguas subterraneas-10-11 March 2011, Lisboa, Portugal.**

10-**Mohamed A. Khalil1**, Ramalho, E. C., and Fernando A. Monteiro Santos: Using resistivity logs to estimate hydraulic conductivity: a case study in the Nubian sandstone aquifer, southern Egypt, **20th Workshop of Electromagnetic Induction in the Earth, Giza, Egypt, September 18-24, 2010.**

11-Mehrez Elwaseif and **Mohamed A. Khalil**: Stratigraphic Interpretation of GPR Data Using 2D S-Transform. Society of Exploration Geophysics, **SEG 2010, Denver, Colorado, USA.**

12-**Mohamed A. Khalil** and Fernando Monteiro Santos: Using a real surface conductivity component to estimate hydraulic

conductivity, Society of Exploration Geophysics, **SEG 2010**, **Denver, Colorado, USA.**

13-**Mohamed A. Khalil**, Mahfooz A. Hafez, Fernando Monteiro Santos, Elsa C. Ramalho, Hany S.A. Mesbah and Gad M. El-Qady: An approach to estimate porosity and groundwater salinity by combined application of GPR and VES: a case study in the Nubian sandstone aquifer. **Fifth International Symposium on Geophysics (ISG-5), 2009, Tanta University, Egypt.**

14-**Mohamed A. Khalil**, Fernando A. Monteiro Santos, Sameh M. Moustafa, and Usama M. Saad: Mapping water seepage from Nasser Lake (Egypt) using VLF-EM method - A case study. **The 3rd International Conference on Water Resources and Arid Environments and the 1st Arab Water Forum, Riyadh, Saudi Arabia from 16-19 November 2008.**

15-**Mohamed A. Khalil**, El-Said A. Al-Sayed and A. GH. Hassaneen: Ground/ surface water interactions and evaporation loss determined from chloride and stable isotopes in Nasser Lake, Egypt. **2nd International Conference of Applied Geophysics, Cairo, Egypt, 2006.**

16- **Mohamed A. Khalil**: Estimating hydraulic parameters from analysis of long-term groundwater fluctuation at Garf Hussien area, Egypt. **Fourth International Conference on the Geology of Africa, November 2005.**

17- **Mohamed A. Khalil**, K. Knoblich, A. Gh. Hassaneen, El-Said A. Al-Sayed, and S.El-Sherief: Geoelectrical investigation of the salinity problem in El-Arish area, northern Sinai, Egypt. **32nd Inter. Geological Cong. (IGC), Florence, Italy, 2004.**

18- **Mohamed A. Khalil**: Tritium and radiocarbon dating of groundwater in Wadi El-Arish area, Sinai, Egypt. **3rd.International Symposium of Geophysics (ISG-3). The third International Symposium of Geophysics (ISG-3). Fac. Sci. Tanta Uni.2003.**

19- Hassaneen, G. and **Khalil, M. A**.: Evaluation of groundwater potentiality in Wadi El-Natrun area. **Hydrology in a changing environment. BHS international conference, United Kingdum, No. 9, pp.36-39. July 1998**

20-Mesbah, M. A., A. Gh. Hassaneen, H.M. El-Shayeb and **Mohamed.A. Khalil**: Groundwater evaluation using surface resistivity measurements at Wadi El-Natrun, Egypt. Proc. **5th International Conference on Petroleum, Mining, and Metallurgical Engineering. V. II., pp. 332-348, February 1997.**

21- Diab, M. S., A. Gh. Hassaneen, H.M. EL-Shayeb, M.A. Mesbah, and **Mohamed.A. Khalil**: Geoelectrical and hydrogeological studies in Wadi El-Natrun Depression. Proc.**14th, Annual meeting, The Egyptian Geophysical Society, pp. 75-94, March 1996.**

Reports

1. Resistivity and Time Domain Electromagnetic Investigation to Delineate the Hydrogeological System Near Sidney, Montana, **Mohamed Khalil**. Montana Bureau of Mining and Geology, 2018, 33 p.

2. A geophysical survey near Lime Kiln Rd., Butte, Montana, to Investigate the Hydrogeological System along Blacktail Creek, (2018). **Mohamed Khalil**, Rachel Basnaw, Jacob Clarke, Emelina Doucette, John Fitzgerald, Jay Hillygus, Kenton Hoshino, Eva Hover, Brayden Hungrige, Richard Lee, Mariah Mosdal, Shane Namie, Joseph Natale, Kabree Nichols, Christopher Smith, Brent Sordo, Zane White, Andrew Wilson, and Troy Wolff

3. 2D Electrical Resistivity Tomography and VLF-EM Survey in Virginia City, Montana (2017), **Mohamed Khalil**, Carson Coleman, Constance Fenske, Ngoc Ha, Sierra Luoma, Kaitlyn O'Connell, Jonathan Rice, Jess Scanlan, Kyle Schuerg, Scott Schmitt, Nathan Simons, Jon Szarkowski, Maren Tanberg, Tayler Todd prepared for: Montana Bureau of Mines and Geology.

4. Geophysical Electrical Surveys in Lolo, Montana, (2016), **Mohamed Khalil**, Michiel Ayers, Dan Beall, Matt Callaghan, Chase Clausen, Alex Koerner, Ben Krupla, Mariah McCormick, Kaitlin Oliva, Fred Panion, Walter Shyman, Olivia Welch, prepared for: Montana Bureau of Mines and Geology.

5. Prospecção Mineral no "Polígono Albernoa, Contrato de Prestação de Serviços EPOS-FFCUL, Relatório de Progresso, 2º Trimestre, Julho de 2013 (Mineral prospecting in "Polygon Albernoa of Service Agreement EPOS-FFCUL, Progress Report, 2nd Quarter, July 2013).

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6- American Geophysical Union (AGU)
7- Journal of Applied Geophysics

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