Karem Abdelmohsen
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EDUCATION:

2017 – 2020	**Ph.D. in Geosciences:** Western Michigan University, Kalamazoo, Michigan, USA GPA 3.87
2009 – 2014	**M.Sc. in Geophysics:** Al Azhar University, Egypt **M.Sc. Dissertation**: Gravity Observations at Sinai Peninsula and its Geophysical and Geodetic Applications.
2003 – 2007	**B.Sc. in Geophysics** (*Very Good)*: Al Azhar University, Egypt.

APPOINTMENTS:

2023 – Present	**Postdoctoral Researcher:** School of Sustainability, Arizona State University, Tempe, Arizona, USA
2020 – 2022	**Senior Research Associate:** Department of Geosciences, Western Michigan University, Kalamazoo, Michigan, USA
Summer 2022	**Instructor** for Geophysical and Hydrofield Course: Department of Geological and Environmental Sciences, Western Michigan University, Kalamazoo, Michigan, USA
2017 – 2020	**Teaching and Research Assistant:** Department of Geological and Environmental Science**s**, Western Michigan University, Kalamazoo, Michigan, USA
2015 – 2017	**Visiting Research Scientist:** Department of Geosciences, Western Michigan University, Kalamazoo, Michigan, USA
2009 – 2014	**Assistant Researcher:** National Research Institute of Astronomy and Geophysics (NRIAG), Helwan, Egypt.

PUBLICATIONS

- **Abdelmohsen, K**., Sultan, M., Save, H. et al. Watching the Grand Ethiopian Renaissance Dam from a Distance: Implications for Water Management Policies of the Nile Water. (Manuscript under review 2024).

- Grevengoed, L., **Abdelmohsen, K.**, Hampton, D., & Krishnamurthy, R. V. (2023). Irrigation-induced evaporative water loss in a glacially derived soil site. Soil Use and Management, 00, 1–11. https://doi.org/10.1111/sum.12982

- El-Ashquer, M., Elsaka, B., Mogren, S., **Abdelmohsen, K.**, Zaki, A., 2023. Assessment of changing satellite gravity mission architectures using terrestrial gravity and GNSS-leveling data in the Kingdom of Saudi Arabia. Egypt. J. Remote Sens. Sp. Sci. 26, 285–292. https://doi.org/10.1016/J.EJRS.2023.03.004

- Elsaka, B., **Abdelmohsen, K**., Alshehri, F., Zaki, A., El-Ashquer, M., 2022. Mass Variations in Terrestrial Water Storage over the Nile River Basin and Mega Aquifer System as Deduced from GRACE-FO Level-2 Products and Precipitation Patterns from GPCP Data. Water 2022, Vol. 14, Page 3920 14, 3920. https://doi.org/10.3390/W14233920

- Földváry, L., **Abdelmohsen, K.**, Ambrus, B., 2023. Water Density Variations of the Aral Sea from GRACE and GRACE-FO Monthly Solutions. Water 2023, Vol. 15, Page 1725 15, 1725. https://doi.org/10.3390/W15091725

- Sahour H., Sultan M., Abdellatif, Emil M., Abotalib, **Abdelmohsen K**., Vazifedan, T. Mohammad, M. Hassan, R. Metwalli, Mohammed El Bastawesy, Identification of shallow groundwater in arid lands using multi-sensor remote sensing data and machine learning algorithms, Journal of Hydrology, Volume 614, Part A, 2022, 128509, ISSN 0022-1694, https://doi.org/10.1016/j.jhydrol.2022.128509.

- Sataer, G.; Sultan, M.; Emil, M.K.; Yellich, J.A.; Palaseanu-Lovejoy, M.; Becker, R.; Gebremichael, E.; **Abdelmohsen, K.** Remote Sensing Application for Landslide Detection, Monitoring along Eastern Lake Michigan (Miami Park, MI). Remote Sens. 2022, 14, 3474. https://doi.org/10.3390/rs14143474

- Hakimi, M.H., Varfolomeev, M.A., Kahal, A.Y., Gharib, A.F., Alshehri, F., Rahim, A., Al Faifi, H.J., Al-Muntaser, A.A., Qaysi, S., **Abdelmohsen, K**., 2022. Conventional and unconventional petroleum potentials of the Late Jurassic Madbi organic-rich shales from the Sunah oilfield in the Say'un--Masilah Basin, Eastern Yemen. J. Asian Earth Sci. 231, 105221.

- Othman, A., **Abdelmohsen, K**., 2022. A Geophysical and Remote Sensing-Based Approach for Monitoring Land Subsidence in Saudi Arabia, in: Applications of Space Techniques on the Natural Hazards in the MENA Region. Springer, Cham, pp. 477–494.

- **Abdelmohsen, K**., Sultan, M., Save, H. et al. Buffering the impacts of extreme climate variability in the highly engineered Tigris Euphrates river system. Sci Rep 12, 4178 (2022). https://doi.org/10.1038/s41598-022-07891-0

- Izadi, M., Sultan, M., Kadiri, R. El, Ghannadi, A., **Abdelmohsen, K**., 2021. A Remote Sensing and Machine Learning – Based Approach to Forecast the Onset of Harmful Algal Bloom. Remote Sens, 2021. 13(19), 3863; https://doi.org/10.3390/rs13193863

- Aljammaz, A., Sultan, M., Izadi, M., Abotalib, A. Z., Elhebiry, M. S., Emil, M. K., **Abdelmohsen, K**., Saleh, M., & Becker, R. (2021). Land Subsidence Induced by Rapid Urbanization in Arid Environments: A Remote Sensing-Based Investigation. Remote Sensing, 13(6), 1109. https://doi.org/10.3390/rs13061109

- Pankratz, H.G., Sultan, M., **Abdelmohsen, K.** et al. 2021. Use of Geophysical and Radar Interferometric Techniques to Monitor Land Deformation Associated with the Jazan Salt Diapir, Jazan city, Saudi Arabia. Surveys in Geophysics 42, 177–200 (2021). https://doi.org/10.1007/s10712-020-09623-3

- **Abdelmohsen, K.**, Sultan, M., Save, H., Abotalib Z., A., 2020. What can the GRACE seasonal cycle tell us about lake-aquifer interactions? Earth-Science Rev. https:// DOI: 10.1016/j.earscirev.2020.103392

- **Abdelmohsen, K.**, Sultan, M., Ahmed, M., Save, H., Elkaliouby, B., Emil, M., Yan, E., Abotalib, A.Z., Krishnamurthy, R.V., Abdelmalik, K., 2019. Response of deep aquifers to climate variability. Sci. Total Environ. 677, 530–544. https://doi.org/10.1016/j.scitotenv.2019.04.316

- Sahour, Sultan, Vazifedan, **Abdelmohsen, K.** Karki, Yellich, Gebremichael, Alshehri, Elbayoumi, 2020. Statistical Applications to Downscale GRACE-Derived Terrestrial Water Storage Data and to Fill Temporal Gaps. Remote Sens. 12, 533. https://doi.org/10.3390/rs12030533

- Sultan, M., Sturchio, N.C., Alsefry, S., Emil, M.K., Ahmed, M., **Abdelmohsen, K.**, AbuAbdullah, M.M., Yan, E., Save, H., Alharbi, T., Othman, A., Chouinard, K., 2019. Assessment of age, origin, and sustainability of fossil aquifers: A geochemical and remote sensing–based approach. Journal of Hydrol. https://doi.org/10.1016/J.JHYDROL.2019.06.017

- Abdelmalik, K. W., & **Abdelmohsen, K**. (2019). GRACE and TRMM mission: The role of remote sensing techniques for monitoring spatio-temporal change in total water mass, Nile basin. Journal of African Earth Sciences, 160. https://doi.org/10.1016/j.jafrearsci.2019.103596

- Othman, A, Sultan, M., Becker, R., Alsefry, S., **Abdelmohsen, K**., 2018. "Use of Geophysical and Remote Sensing Data for Assessment of Aquifer Depletion and Related Land Deformation." Surveys in Geophysics, 2018, https://doi:10.1007/s10712-017-9458-7.

- Ahmed, M., **Abdelmohsen, K**., 2018, Quantifying Modern Recharge and Depletion Rates of the Nubian Aquifer in Egypt: Surveys in Geophysics, 2018, DOI; https://doi.org/10.1007/s10712-018-9465-3

CONFERENCES

- Sultan, Mohamed; Abdelmohsen, Karem; Emil, Mustafa Kemal; Save, Himanshu; Yan, Eugene; Farag, Abotalib ZA; GRACE and GRACE-FO for assessing watershed response to climate variability: insights from the Tigris Euphrates and the Nile basin watersheds, AGU Fall Meeting Abstracts AGU2023

- Sultan, Mohamed; Abdelmohsen, Karem; Yan, Eugene; Farag, Abotalib ZA; Emil, Mustafa Kemal; Save, Himanshu; Elhaddad, Hesham; Monitoring GERD's Filling Process: A GRACE-Based Investigation, AGU Fall Meeting Abstracts AGU2023

- Abbaszadeh, P., Cai, F., Abdelmohsen, K., Calligaris, C., Ahmad, Q.U.A., Capoccioni, F., Ahmed, F., Carlson, C., Albert, C., Carmen, M., others, 2022. Acknowledgment to Reviewers of Hydrology.

- Abdelmohsen, K., Sultan, M., Save, H., Farag, A., Zahran, K.H., 2022. The role dams could play in modulating the impacts of climate change in shared river systems: insights from the Tigris Euphrates watershed, in: American Geophysical Union .

- Karimi, H., Sultan, M., Emil, M.K., Sahour, H., Abdelmohsen, K., Saleh, H., 2022. The Impact of Extreme Precipitation Events on The Terrestrial Water Storage in The Arabian Peninsula, in: AGU Fall Meeting Abstracts. pp. H36E--06.

- Pankratz, H.G., Alharbi, H., Sultan, M., Abdelmohsen, K., Emil, M.K., Alamudi, M., Alsadi, N., Alzahrani, S., Aldahri, M., Al Amri, R., 2022. InSAR, Geophysical, and Field Investigations to Assess and Monitor Deformation Associated with a Rising Salt Diapir, Jazan City and Surroundings, Kingdom of Saudi Arabia, in: AGU Fall Meeting Abstracts. pp. NS53A--07.

- Saleh, H., Sultan, M., Abdelmohsen, K., Save, H., Karimi, H., Emil, M.K., 2022. Use of GRACE and GRACE-FO to Monitor the Impacts of Tropical Cyclones on Arabia's Hydrologic Systems, in: AGU Fall Meeting Abstracts. pp. NS35A--0371.

- Sataer, G., Sultan, M., Emil, M.K., Palaseanu, M., Becker, R., Yellich, J.A., Gebremichael, E., Abdelmohsen, K., Karimi, H., 2022. Remote Sensing Applications for Landslide Detection and Monitoring along Lake Michigan Eastern Coastline, Miami Park, MICHIGAN, in: AGU Fall Meeting Abstracts. pp. NH23C--03.

- Sultan, M., Abdelmohsen, K., Saleh, H., Karimi, H., 2023. Recharge from Reservoirs, Groundwater Flow, and Response to Climate Variability in Arid Basins: Revelations from GRACE Observations.

- Sultan, M., Abdelmohsen, K., Save, H., 2022. Remote Sensing Applications for Assessment of Seepage from Artificial Reservoir: Case Studies from the Nile Basin, Africa, in: AGU Fall Meeting Abstracts. pp. H25R--1326.

- Abdelmohsen, K., Sultan, M., Save, H., Zahran, K.H., 2021. Watching the Grand Ethiopian Renaissance from a Distance, AGU Fall Meeting 2021.

- Badawy, A., Sultan, M., Abdelmohsen, K., Save, H., 2021. Assessment of Extreme Precipitation Events over the Nile Basin and their Impact on Downstream Countries, in: AGU Fall Meeting 2021.

- Emil, M.K., Pankratz, H.G., Sultan, M., Al-Akhras, K., Abdelmohsen, K., Al-Marri, M., 2021. Continuous monitoring of ground motion using Sentinel-1 InSAR time series: A case study from Doha, Qatar, in: AGU Fall Meeting 2021.

- Pankratz, H.G., Sultan, M., Emil, M.K., Sefry, S., Al Harbi, H., Abdelmohsen, K., 2021. Salt Diapir Hazard Monitoring in the Southwestern Arabian Peninsula, in: AGU Fall Meeting 2021.

- Sahour, H., Sultan, M., Emil, M.K., Abdellatif, B., Farag, A.Z.A., Vazifedan, M., Abdelmohsen, K., Hassan, S.M., Attwa, M., 2021. Use of Multi-sensor Remote Sensing Data and Machine Learning to Locate Shallow Groundwater in the Western Desert of Egypt, in: AGU Fall Meeting 2021.

- Sultan, M., Abdelmohsen, K., Save, H., Farag, A.Z.A., Yan, E., Zahran, K.H., 2021. Assessment of the impacts of climate variability on highly engineered watersheds: A case study from the Tigris Euphrates watershed, in: AGU Fall Meeting 2021.

- Abdelmohsen K., Sultan M., Save H, 2020 GRACE a witness to the Recovery of the Tigris-Euphrates Hydrologic System. GRACE Science Team Meeting (GSTM 2020)
- Abdelmohsen, K., SULTAN, M., Save,H., Kamel , M., 2020. Assessment of Signal Leakage on GRACE-Derived Seasonal Variations in Dakhla Subbasin, Egypt. In American Geophysical Union, Fall Meeting, USA. 1-17 December

- Abdelmohsen K., Sultan M., Save H, 2019 GRACE a witness to the Recovery of the Tigris-Euphrates Hydrologic System. GRACE Science Team Meeting (GSTM 2019)
- Abdelmohsen, K., SULTAN, M., Save,H., Kamel , M., 2019. Use of GRACETWS to identify the nature and timing of recharge sources and groundwater flow directions and velocities in aquifers. In American Geophysical Union, Fall Meeting, USA. December

- Abdelmohsen, K., SULTAN, M., Ahmed, M., Save,H., Kamel , M., 2018. Use of Geophysical, Remote Sensing, and Field data to investigate the Nature of Groundwater Flow Regimes in Large Aquifers: The Nubian Sandstone Aquifer System (NSAS) of NE Africa. In Geological Society of America, Fall Meeting, Indianapolis, Indiana, USA. 4-7 November.

- Abdelmohsen, K., Sultan, M., Save, H.,. 2018. Comparison of GRACE Response (RL06 versus RL05) over Fossil Aquifers in NE Africa. In American Geophysical Union, Fall Meeting, Washington, D.C., USA. 10-14 December

- Sahour, H., Sultan, M., Fathy, K., Yellich, J., Karki, S., Wireman, M., 2017. Assessment of the Spatial and Temporal Variations in TWS and GWS in Michigan's Lower Peninsula and Identification of the Controlling Factors, AGU, New Orleans, 11-15 Dec.2017.

- Sahour, H., Sultan, M., Fathy, K., Yellich, J., Karki, S., Wireman, M., 2017. Assessment of the Spatial and Temporal Variations in TWS and GWS in Michigan's Lower Peninsula and Identification of the Controlling Factors, AGU, New Orleans, 11-15 Dec.2017.

- Abdelmohsen, K., SULTAN, M., Ahmed, M., Save,H., Kamel , M., Elkaliouby, B. 2017. Structural Control and Groundwater Flow in the Nubian Aquifer, AGU, New Orleans, 11-15 Dec.2017.

- Emil, M., Sultan, M., Abdellatif, B., Fathy, K., Sahour, H., Sataer, G., Karki, S., El Bastawesy, M., Metwaly, M., 2017. Temporal Analysis of Multi-sensor Data to Identify and Monitor Natural Groundwater Discharge in Arid Environments, AGU, New Orleans, 11-15 Dec.2017.

- Abdelmohsen, K., Sultan, M., Ahmed, M., Save,H., Kamel , M.,. 2017. How do aquifers respond to wet and dry periods? a case study from the nubian sandstone aquifer system (nsas). gsa, washington dc, 22-25 october.

- Pankratz, H., Sultan, M., Sefry,S., Fathy, K., Almogren,S., Harbi,H., Emil, M., Elkadiri,R., Mustafa Kemal, gebremichael, esayas. 2017. remote sensing and geophysical constraints on the distribution and deformation associated with salt dome intrusions along the southern red sea coastline, saudi arabia. gsa, washington dc, 22-25 october.

- Othman, A., sultan, M., Becker, R., Alsefry, S., Abdelmohsen, K. 2017. use of grace and lsms outputs for the assessment and sustainable utilization of the mega aquifer system over the arabian peninsula, gsa, washington dc, 22-25 october.

- Fathy, K., Sultan, M., Bettadpur,S., Save,H., Ahmed, M., Kamel , M., Zaki, A., K.H. Zahran, Sabry, A., Sobhy. A. 2016. Integration of Satellite Gravity data with ground-based geophysical data for a better understanding of the structural control of groundwater flow in the Nubian Sandstone Aquifer System. AGU, San Francisco, California, 12-16 December

- Gebremichael, E., Sultan, M., Becker, El Bastawesy, M., Cherif,O., Emil,M., Ahmed, M., Fathy, K., Karki,S., Chouinard, K. (2016). Investigated the origin of natural and anthropogenic deformation across the nile delta using radar interferometry grace modeling and field data. AGU, San Francisco, California, 12-16 December.

- Pankratz, H., Sultan, M., Fathy, K., Almogren,S., Harbi,H., Serfy,S., Emil, M., Elkadiri,R., Ahmed,M., Othman.A., Chouinard, K. 2016. Assessment of the Extent of Land Deformation Associated with Salt Domes within the Jazan City and Surroundings, Saudi Arabia. AGU, San Francisco, California, 12-16 December.

  SULTAN, M., Sturchio,N., Ahmed, M., Sefry,S., Mohamed,A., Abuabdallah,M., Emil,M., Save, H., Fathy, K., Chouinard, K. 2016. Assessment of the hydrologic setting and mass transport within Saharan and Arabian Aquifers using GRACE, geochemical, geophysical and subsurface data. AGU, San Francisco, California, 12-16 December.
- SULTAN, M., Fathy, K., Ahmed, M.,Save,H., Bettadpur,S., Chouinard, K. 2016. What more can GRACE Solutions tells us about Aquifers and their Interactions with Artificial Lakes. GSTM2016, Potsdam, Germany, 5-7 October.

- SULTAN, M., Sturchio, N., Sefry, S., Emil, M., Ahmed, M., Fathy, K., AbuAbdullah, M., Bttadpur, S., Save, H., Othman, A., Chouinard, K., 2016 A Geochemical and Remote Sensing-based Approach for the Assessment of the Age, Origin, and Optimum Utilization of Fossil Aquifers, submitted to the GSA Bulletin.

AWARDS AND HONORS

2022	College Discovery and Dissemination Grant, College of Arts and Science, WMU
2023	Interdisciplinary Research Initiative Grant, College of Arts and Science, WMU
2017	Farouk El-Baz Student Research Grant (one of two recipients), from the Geological Society of America (GSA) $ 2500

2020 Student Research Grant from Geological Society of America (GSA) $1350

2015 Scholarship from the Egyptian Mission channel program to cover traveling expenses to Western Michigan University, Kalamazoo, MI, US ($ 48,000)

2014 Project funded from Science and Technology Development Fund (STDF) to conduct joint research at Department of Physical and Satellite Geodesy, Technical University, Darmstadt, Germany (€5600).

2012 Scholarship funded from the ParOwn Association to conduct research in Department of Geodesy and Surveying, BME University, Hungary.

Local Awards

2020 Climate Change Graduate Research Grant from Western Michigan University $ 2000

2020 Graduate Student Research Grant from Western Michigan University $1000

2018 Graduate Student Research Grant from Western Michigan University $1600

2018 Highest Graduate Student GPA (4.0) at the department 2018 awards banquet $ 500

2018 Kalamazoo Geological and Mineral Society scholarship at the 2018 awards banquet $1000

RESEARCH PROJECTS

Pending Grants:

2023-2025: Abdelmohsen K., Co-I: Investigating the interplay between tectonic, climatic, and anthropogenic forcing on landscape evolution and natural hazards in arid lands: NASA, Total: $519,000
2023-2025: Abdelmohsen K., Co-I: Assessment and Management of Extreme Precipitation Events: A key to Sustainable Utilization of Water Resources in Arid Lands: NASA, Total: $510,000

Participation & Collaboration in funded projects:

2020 – 2024: Monitoring Deep Aquifer Response to Climatic Variability Using GRACE Data: NASA, Total: $575,938
2011 – 2015: Use of GRACE, remote Sensing, and traditional data sets for modeling time-dependent water partitioning on continental scales: A case study from Africa: NASA, Total: $457,000
2019 – 2022: Natural discharge for agricultural development and a solution for reduced River Nile flow (National Academy of Sciences) ($104,589).
2017 – 2022: Geophysical and Remote Sensing applications for a better understanding of the distribution and deformation associated with Salt domes in the Jazan City and surroundings, Saudi Arabia (Saudi Geological Survey) ($221,000).
2016 – 2020: An integrated approach for a better understanding of the hydrologic setting, longevity, and optimum utilization of the Nubian Sandstone Aquifer System in Egypt (National Academy of Sciences) ($168,143).
2019: GRACE: An effective tool for understanding aquifers', infiltration, recharge, mass transport, impediments, response, and sustainable utilization (NASA) ($49,999)
2011 – 2018: Use of Grace, remote Sensing, and traditional data sets for modeling time-dependent water partitioning on continental scales: A case study from Africa, (NASA- GRACE) ($522,000).

PROFESSIONAL ACTIVITIES AND AFFILIATIONS:

Journal Reviewer:
2016 – Present: Pure and Applied Geophysics; Remote Sensing; Water; African of Earth Science; Journal of King Saud University and Nature Scientific Report.

Journal Editor:
2020 – 2022: Remote Sensing, special issue "Spatiotemporal Variability from GRACE, Remote Sensing, and Other Datasets"
2022 – Present: Water Journal, special issue "Novel Perspective for Interactions between Water and the Geology"

Professional Affiliations:
Member in NASA GRACE Science Team**,** American Geophysical Union (AGU), Geological Society of America (GSA), and Society of Exploration Geophysics (SEG).

TRAINING AND TECHNICAL SKILLS

July 2019	Hazardous Waste Operations and Emergency Response (HAZWOPER; OSHA 40 hr. Certification)	Western Michigan University, USA.
July 2019	Hydrogeology Field Course	Western Michigan University, USA.
July 2016	Gravity Recovery and Climate Experiment (GRACE): Principals and Applications	University of Texas, Center of Space Research (CSR), USA.
Spring 2016	Remote Sensing and GIS Applications in Geological, Hydrological, and Environmental Studies	Department of Geosciences, Western Michigan University, Kalamazoo, Michigan, USA.
Dec. 2015	Gravity Recovery and Climate Experiment (GRACE): Principals and Applications	Department of Geosciences, Western Michigan University, Kalamazoo, Michigan, USA.
Dec. 2014	Training on processing and Interpretation of satellite gravity data (GOCE)	Department of Physical and Satellite Geodesy, Technical University, Darmstadt, Germany
June 2014	Conducting gravity survey in Budapest	Geological and Geophysical Institute, Budapest, Hungary
2013	Training on GRACE and Satellite Altimetry	Technische Universität Darmstadt, Darmstadt University, Darmstadt, Germany
Nov. 2012	GRACE related research	Egyptian Scholarship in Department of Geodesy and Surveying, BME University, Hungary

RESEARCH INTERESTS:

My research interests lie in the fields of hydrology, GRACE, remote sensing, geophysics, GIS, statistical analysis, and climate change studies. I use interdisciplinary approaches that take advantage of readily available data sets and tools to address a wide range of environmental issues and natural hazards (e.g. aquifer recharge, flooding, droughts, groundwater depletion, and land deformation) all around the globe (e.g., USA, Africa, and Asia). This includes the interactions between hydrosphere and geosphere, statistical analysis of climate variabilities, and anthropogenic impact on the environment. Examples include monitoring variation in GRACE TWS and GWS in many aquifers over the world and integrating GRACE and GRACE-FO TWS signal with independent geophysical and remote sensing data that include radar altimetry, gravity, magnetic, climate models, MODIS, Precipitation, Landsat, Sentinel-1&2 and numerical modeling (e.g. GLDAS, CLM, GMS groundwater modeling, Riverflow2D Flood Modeling), statistical approaches, as well as GIS methodologies and techniques.

TEACHING EXPERIENCE:

I have taught (2017-2021) a wide range of geoscience courses at Western Michigan university include, Intro. Geophysics for 3 years, Environmental Geophysics, Dynamic Earth GEOS1000, Hydrogeology Field Course, Geological Field Methods, Geological Field Studies, Geological Field Mapping and GIS) to several populations of students (undergraduate and graduate levels).

GEOPHYSICAL/GEOLOGICAL FIELD EXPERIENCE:

Mapping old cemetery in Michigan using Ground Penetrating Radar (GPR)	WMU Department	2019
Assessment of the extent of land deformation associated with salt domes within the Jazan city and surroundings, Saudi Arabia through conducting geophysical field work in Saudi Arabia	Financed by STDF and Saudi Geological Survey	2018
Geophysical study of Al-Dabaa area	Financed by the Egyptian Nuclear Material Authority	2007
Geophysical field trips in different localities in Egypt	Sinai– Eastern Desert – Western Desert – Aswan – Egyptian Delta	2007-2012

UNIVERSITY & COMMUNITY SERVICES:

2018-2020	K-12 Outreach and CoreKids program by Geological and Environmental Sciences, Western Michigan University, USA
2017-2019	Remote Sensing Science Olympiad Organization Committee, Western Michigan University, USA
2015-2017	Remote Sensing Science Olympiad Organization Committee, Western Michigan University, USA