

CURRICULUM VITAE

Name: Talal Ghazi N. Alharbi

Profession: Associate Professor of hydrogeology and environmental geology

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Education:

- **Ph.D. in Geosciences:** College of Arts and Sciences, Western Michigan University, Kalamazoo, Michigan, August 15, 2014.
Thesis Title: Integrated (Remote Sensing, GIS, and Modeling) Hydrological Investigation and Landslide Susceptibility Studies in the Arabian Shield.
- **M. Sc. in Hydrogeology:** Department of Geology, King Saud University, Saudi Arabia, 2006.
Thesis Title: Hydrochemical evaluation of Wasia Well Field in Riyadh Area.
- **B. Sc. in General Geology:** Department of Geology, King Saud University, Saudi Arabia, 1998.

Positions:

- **2022- present:** Associate Professor, Department of Geology and Geophysics, King Saud University, Saudi Arabia.
- **2018-2022:** Delegated to the Saudi Arabian Cultural Bureau.
- **2016- 2018:** Vice Dean for Academic Affairs
- **2014 – Present:** Assistant Professor, Department of Geology and Geophysics, King Saud University, Saudi Arabia.
- **2006- 2014:** Lecturer, Department of Geology and Geophysics, King Saud University, Saudi Arabia.
- **2000 – 2006:** Geologist, Department of Geology and Geophysics, King Saud University, Saudi Arabia.

Current Research Interests:

- Satellite applications in hydrology and geology.
- Applications of GIS in water resources.
- Addressing issues relating to the sources, distribution, and quality of water in Saudi Arabia.

Research projects:

- 1- Principal investigator of the research project “Seawater intrusion detection in the Rabigh-Yanbu coastal aquifers, Saudi Arabia, using integrated Geophysical and Geochemical techniques”. Supported by the National Plan for science, Technology and Innovation.

List of Publications:

Alharbi, T. (2023). Agricultural impacts on groundwater resources in Saudi Arabia: Insights from remote sensing and geographic information systems. *Sustainability*, under review.

- Alharbi, T.**, Abdelrahman, K., & El-Sorogy, A. S. (2023). Identification of groundwater potential zones in the Rabigh-Yanbu area on the western coast of Saudi Arabia using remote sensing (RS) and geographic information system (GIS). *Frontiers in Earth Science*. Accepted.
- Alharbi, T.** (2023). Mapping of Groundwater, Flood, and Drought Potential Zones in Neom, Saudi Arabia, Using GIS and Remote Sensing Techniques. *Water*, 15, Accepted.
- Alharbi, T.**, & El-Sorogy, A. S. (2023). Risk Assessment of Potentially Toxic Elements in Agricultural Soils of Al-Ahsa Oasis, Saudi Arabia. *Sustainability*, 15(1), 659. MDPI AG. Retrieved from <http://dx.doi.org/10.3390/su15010659>
- Alharbi, T.** & El-Sorogy, A. S. (2022). Quality and groundwater contamination of Wadi Hanifa, central Saudi Arabia. *Environmental Monitoring and Assessment*, accepted.
- Alharbi, T.**, El-Sorogy, A. S., Qaysi, S., & Alshehri, F. (2021). Evaluation of groundwater quality in central Saudi Arabia using hydrogeochemical characteristics and pollution indices. *Environmental Science and Pollution Research*, 28(38), 53819-53832.
- Demircan, H., SOROGY, A. E., & **Alharbi, T.** (2021). Bioerosional structures from the Late Pleistocene coral reef, Red Sea coast, northwest Saudi Arabia. *Turkish Journal of Earth Sciences*, 30(1), 22-37.
- Alharbi, T.**, & El-Sorogy, A. S. (2021). Spatial distribution and risk assessment of heavy metals pollution in soils of marine origin in central Saudi Arabia. *Marine Pollution Bulletin*, 170, 112605.
- Al-Hashim, M. H., El-Sorogy, A. S., Al Qaisi, S., & **Alharbi, T.** (2021). Contamination and ecological risk of heavy metals in Al-Uqair coastal sediments, Saudi Arabia. *Marine Pollution Bulletin*, 171, 112748.
- Alshehri, F., Almadani, S., El-Sorogy, A. S., Alwaqdani, E., Alfaifi, H. J., & **Alharbi, T.** (2021). Influence of seawater intrusion and heavy metals contamination on groundwater quality, Red Sea coast, Saudi Arabia. *Marine Pollution Bulletin*, 165, 112094.
- El-Sorogy, A. S., Demircan, H., & **Alharbi, T.** (2020). Gastrochaenolites ichnofacies from intertidal seashells, Al-Khobar coastline, Saudi Arabia. *Journal of African Earth Sciences*, 171, 103943.
- El-Sorogy, A. S., **Alharbi, T.**, Almadani, S., & Al-Hashim, M. (2019). Molluscan assemblage as pollution indicators in Al-Khobar coastal plain, Arabian Gulf, Saudi Arabia. *Journal of African Earth Sciences*, 158. <https://doi-org.sdl.idm.oclc.org/10.1016/j.jafrearsci.2019.103564>
- 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 Hydrology*, 576, 325–341. <https://doi-org.sdl.idm.oclc.org/10.1016/j.jhydrol.2019.06.017>
- El Alfy, M., Abdalla, F., Moubark, K., & **Alharbi, T.** (2019). Hydrochemical equilibrium and statistical approaches as effective tools for identifying groundwater evolution and pollution sources in arid areas. *Geosciences Journal*, 23(2), 299.
- Alharbi, T.**, & El-Sorogy, A. (2019). Assessment of seawater pollution of the Al-Khafji coastal area, Arabian Gulf, Saudi Arabia. *Environmental Monitoring & Assessment*, 191(6), 1–11. <https://doi-org.sdl.idm.oclc.org/10.1007/s10661-019-7505-1>
- Othman, A., Sultan, M., Becker, R., Alsefry, S., **Alharbi, T.**, Gebremichael, E., Alharbi, H., & Abdelmohsen, K. (2018). Use of Geophysical and Remote Sensing Data for Assessment of Aquifer Depletion and Related Land Deformation. *Surveys in Geophysics*, 39(3), 543.
- El-Sorogy, A. S., **Alharbi, T.**, & Richiano, S. (2018). Bioerosion structures in high-salinity marine environments: Evidence from the Al-Khafji coastline, Saudi Arabia. *Estuarine, Coastal and Shelf Science*, 204, 264–272. <https://doi-org.sdl.idm.oclc.org/10.1016/j.ecss.2018.03.005>
- El Alfy, M., **Alharbi, T.**, & Mansour, B. (2018). Integrating geochemical investigations and geospatial assessment to understand the evolutionary process of hydrochemistry and groundwater quality in arid areas. *Environmental Monitoring & Assessment*, 190(5), 1. <https://doi-org.sdl.idm.oclc.org/10.1007/s10661-018-6640-4>
- Alharbi, T. G.**, & Zaidi, F. K. (2018). Hydrochemical classification and multivariate statistical analysis of groundwater from Wadi Sahba area in central Saudi Arabia. *Arabian Journal of Geosciences*, 11(20), 1.
- Alharbi, T. G.** (2018). Identification of hydrogeochemical processes and their influence on groundwater quality for drinking and agricultural usage in Wadi Nisah, Central Saudi Arabia. *Arabian Journal of Geosciences*, 11(13), 1.

- Almadani, S., Ibrahim, E., Hafez, M., Alfaifi, H., **Alharbi, T.**, Abdelrahman, K., & Abdel-Motaal, E. (2018). Geotechnical investigation of the El-Elb dam site, northwest Riyadh, Saudi Arabia, using 2D resistivity and ground-penetrating radar techniques. *Arabian Journal of Geosciences*, 11(2), 0.
- Alharbi, T.**, & El-Sorogy, A. (2017). Assessment of metal contamination in coastal sediments of Al-Khobar area, Arabian Gulf, Saudi Arabia. *Journal of African Earth Sciences*, 129, 458–468. <https://doi-org.sdl.idm.oclc.org/10.1016/j.jafrearsci.2017.02.007>
- Alharbi, T.**, Alfaifi, H., Almadani, S., & El-Sorogy, A. (2017). Spatial distribution and metal contamination in the coastal sediments of Al-Khafji area, Arabian Gulf, Saudi Arabia. *Environmental Monitoring & Assessment*, 189(12), 1–15. <https://doi-org.sdl.idm.oclc.org/10.1007/s10661-017-6352-1>
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- T. Alharbi**, M. Sultan, S. Sefry, R. ElKadiri, M. Ahmed, R. Chase, A. Milewski, M. Abu Abdullah, M. Emil, & K. Chounaird. (2014). An assessment of landslide susceptibility in the Faifa area, Saudi Arabia, using remote sensing and GIS techniques. *Natural Hazards and Earth System Sciences*, 14(6), 1553–1564. <https://doi-org.sdl.idm.oclc.org/10.5194/nhess-14-1553-2014>
- Al- Harbi, T. G.** and Hussein, M. T. (2009) Statistical Evaluation of Groundwater Quality in Wasia Well Field, Saudi Arabia. *J. King Saud Univ.*, Vol.21, Science: 125- 135.