

Curriculum Vitae

Dr. Hassan Abdullah Alzahrani

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Current Occupation: Assistant professor, Department of geology and geophysics, College of Science, King Saud University, Riyadh, Saudi Arabia

Education:

- **May 1999:** Bachelor of Mathematics, College of Science, King Saud University, Riyadh, Saudi Arabia.
- **Sep. 2010:** Master of Science in Geophysics, College of Science, King Saud University, Riyadh, Saudi Arabia.
- **Dec. 2018:** Second master's in Geological Engineering at Missouri University of Science and Technology, United States of America (USA).
- **May 2020:** Ph.D. in Geological Engineering, Missouri University of Science and Technology, United States of America (USA).

Research interests:

- Geological Engineering
- Engineering Geophysics
- Applied Geophysics
- Seismic hazard assessment
- Near-Surface Geophysical applications
- Environmental Geophysics
- Natural Hazards

Published Papers in peer-reviewed ISI Journals:

- [Al-Zahrani, H. A.](#), Fnais, M. S., Al-Amri, A. M. and Abdel-Rahman, K. (2012): Tectonic framework of the Lunayyir area, northwestern Saudi Arabia, using 19 May 2009 earthquake swarm and aeromagnetic data. *International Journal of Physical Sciences*, vol. 7(44), pp. 5821-5833, 23 November 2012.
- [Al-Zahrani, H. A.](#), Al-Amri, A. M., Abdel-Rahman, K. and Fnais, M. S. (2013): Aftershock sequence analysis of 19 May 2009 earthquake of Lunayyir lava flow, northwest Saudi Arabia. *International Journal of Physical Sciences*, Vol. 8(7), pp. 277-285, 23 February 2013.
- Abdulrasheed Olaniyan, Ahmad Farid Abu Bakar, Ismail Yusoff, Azman Abd Ghani, Saleh Qaysi, Ali Kahal, Hussain Alfaifi and [Hassan Alzahrani](#) (2020): Physical, geochemical, and clay mineralogical properties of unstable soil slopes in the Cameron Highlands. *Open Geosciences*, August 18, 2021. [10.1515/geo-2020-0281](https://doi.org/10.1515/geo-2020-0281).

- Saleh Qaysi, [Hassan Alzahrani](#), Kamal Abdelrahman (2021): Seismic hazard assessment for the proposed site of electric power plant. *Journal of King Saud University - Science*, Volume 33, Issue 3, May 2021, 101360: [10.1016/j.jksus.2021.101360](https://doi.org/10.1016/j.jksus.2021.101360).
- [Hassan Alzahrani](#), Kamal Abdelrahman, Saleh Qaysi, Naif Al-Otaibi (2021): Shear-wave velocity profiling of Jizan city, southwestern Saudi Arabia, using controlled-source spectral analysis of surface-wave measurements. *Journal of King Saud University - Science*, Volume 33, Issue 7, October 2021, 101592. [10.1016/j.jksus.2021.101592](https://doi.org/10.1016/j.jksus.2021.101592).
- Ali K. Abdelfattah, Mohamed F. Abdelwahed, Saleh Qaysi, [Hassan Alzahrani](#) (2021): Simulation of strong ground motions onshore the southeastern coast of the Red Sea, Saudi Arabia. *Journal of African Earth Sciences*, Volume 184, December 2021, 104373. [10.1016/j.jafrearsci.2021.104373](https://doi.org/10.1016/j.jafrearsci.2021.104373).
- Luan Thanh Pham, Ahmed M. Eldosouky, O. Melouah, Kamal Abdelrahman, [Hassan Alzahrani](#), Saulo P. Oliveira, Peter Andr as (2021): Mapping subsurface structural lineaments using the edge filters of gravity data. *Journal of King Saud University – Science* 33 (2021) 101594. <https://doi.org/10.1016/j.jksus.2021.101594>.
- Ali K. Abdelfattah, Chokri Jallouli, Mohamed Fnais, Saleh Qaysi, [Hassan Alzahrani](#) and Saad Mogren (2021): The key role of conjugate fault system in importing earthquakes into the eastern flank of the Red Sea. *Earth, Planets and Space* (2021) 73:178. 10.1186/s40623-021-01513-1.
- [Hassan Alzahrani](#), Kamal Abdelrahman, Saleh Qaysi and Mohammad Baras (2021): Seismicity of the Neom megaproject area, Northwestern Saudi Arabia. *Journal of King Saud University-Science* (32 Oct. 2021), <https://doi.org/10.1016/j.jksus.2021.101659>.
- Amr Abd El-Raouf, Ibrar Iqbal, Julia Meister, [Hassan Alzahrani](#), Kamal Abdelrahman, Osman M. Badran (2021): Earthflow reactivation assessment by multichannel analysis of surface waves and electrical resistivity tomography: a case study. *Open Geosciences Journal*, November 2021. DOI: 10.1515/geo-2020-0310.
- Luan Thanh Pham, Ahmed Mohammed Eldosouky, David Gomez-Ortiz, Van-Hao Duong, Kamal Abdelrahman, [Hassan Alzahrani](#) (2021): Performance comparison of the wavenumber and spatial domain techniques for mapping basement reliefs from gravity data. *Open Geosciences*, November 2021, [10.1515/geo-2020-0321](https://doi.org/10.1515/geo-2020-0321).
- Fahad Alshehri, Faisal K. Zaidi, [Hassan Alzahrani](#) (2021): Hydrochemical characterization of geothermal and non-geothermal waters from Wadi Fatima, western Saudi Arabia. *Journal of King Saud University - Science*, Volume 33, Issue 7, November 2021. <https://doi.org/10.1016/j.jksus.2021.101717>
- Abdelrahman, K., Al-Amri, A. M., [Alzahrani, H.](#), Qaysi, S., & Al-Otaibi, N. (2022). Soil liquefaction susceptibility of Jizan coastal area, southwest Saudi Arabia, based on microtremor measurements. *Arabian Journal of Geosciences*, 15(7), 1-16. <https://doi.org/10.1007/s12517-022-09863-0>
- [Hassan Alzahrani](#), Kamal Abdelrahman, Saddam Ali Hazaea. (2022). Use of geoelectrical resistivity method for detecting near-surface groundwater potential zones at Riyadh city, Saudi Arabia. *Journal of King Saud University – Science*, 34 (2022) 102253. <https://doi.org/10.1016/j.jksus.2022.102253>.
- Stephen E. Ekwok, Ahmed M. Eldosouky, Ubong C. Ben 1, [Hassan Alzahrani](#), Kamal Abdelrahman, Ogiji-Idaga M. Achadu, Luan Thanh Pham, Anthony E. Akpan and David G omez-Ortiz (2022). Application of High-Precision Filters on Airborne Magnetic Data: A

Case Study of the Ogoja Region, Southeast Nigeria. *Minerals* 2022, 12, 1227. <https://doi.org/10.3390/min12101227>

- Saleh Qaysi, Ali K. Abdelfattah, Sattam Almadani, Abdurashed Olaniyan, [Hassan Alzahrani \(2023\)](#) Attenuation characteristics of coda wave in southern Arabian Shield. *Journal of King Saud University – Science* 35 (2023) 102372.
- Chokri Jallouli, Ali K. Abdelfattah, Mahmoud M. El-Waheidi, Saleh Alqaysi, Saad Mogren, [Hassan Alzahrani \(2023\)](#) Geophysical evidences on reactivation of NE faults in southern Arabian Shield and its tectonic implications. *Journal of King Saud University – Science* 35 (2023) 102372. [10.1016/j.jksus.2022.102445](https://doi.org/10.1016/j.jksus.2022.102445).
- Yasser Alzahrani, Fahad Alshehri, Abdelbaset S. El-Sorogy, [Hassan Alzahrani](#). Environmental assessment of heavy metals in soils around Al-Janabeen Dam, southwest Saudi Arabia. *Journal of King Saud University – Science* 35 (2023) 102503. <https://doi.org/10.1016/j.jksus.2022.102503>.
- Ali K. Abdelfattah, Abdullah Al-amri, [Hassan Alzahrani](#), Bassam A. Abuamarah. Ambient noise tomography in the upper crust of North Harrat Rahat, Saudi Arabia. *Journal of King Saud University – Science* 35 (2023) 102523. <https://doi.org/10.1016/j.jksus.2022.102523>.
- Ammar Ak. Ali, Alaa M. Al-Abbadi, Fadhil K. Jabbar, [Hassan Alzahrani](#), and Samie Hamad. Predicting Soil Erosion Rate at Transboundary Sub-Watersheds in Ali Al-Gharbi, Southern Iraq, Using RUSLE-Based GIS Model. *Sustainability* **2023**, 15(3), 1776; <https://doi.org/10.3390/su15031776>.
- UbongCamilus BenCharlesChisom MbonuCherishEdet ThompsonStephen E. EkwokAnthony.E. AkpanIdaraAkpabioAhmed.M.EldosoukyKamalAbdelrahman, [Hassan Alzahrani](#), David Gómez-Ortiz Luan Thanh Pham Investigating the applicability of the Social Spider Optimization for the inversion of magnetic anomalies caused by dykes. *Journal of King Saud University – Science* 35 (2023) 102569.
- [Hassan Alzahrani](#), Abdelbaset S. El-Sorogy , Saleh Qaysi and Fahad Alshehri. Contamination and Risk Assessment of Potentially Toxic Elements in Coastal Sediments of the Area between Al-Jubail and Al-Khafji, Arabian Gulf, Saudi Arabia. *Water* **2023**, 15, 573. <https://doi.org/10.3390/w15030573>.
- Sabaa Sattar, Yaser Alaiwi, Nabaa Sattar Radhi, Zainab Al-Khafaji, Osamah Al-Hashimi, [Hassan Alzahrani](#), Zaher Mundher Yaseen .Corrosion reduction in steam turbine blades using nano-composite coating. *Journal of King Saud University – Science* 35 (2023) 102861. <https://doi.org/10.1016/j.jksus.2023.102861>
- Bassam A. Abuamarah, [Hassan Alzahrani](#), Marian J. Matta, Mokhles K. Azer, Paul D. Asimow, Mahmoud H. Darwish. Petrological, geochemical and geodynamic evolution of the Wadi Al-Baroud granitoids, north Arabian-Nubian shield, Egypt. *Journal of African Earth Sciences* <https://doi.org/10.1016/j.jafrearsci.2023.105044>.
- [Hassan Alzahrani](#), Abdelbaset S. El-Sorogy, Saleh Qaysi. Assessment of human health risks of toxic elements in coastal area between Al-Khafji and Al-Jubail, Saudi Arabia. *Marine Pollution Bulletin* 196 (2023) 115622. <https://doi.org/10.1016/j.marpolbul.2023.115622>

Local & International Academic Activities

- 2007 Participating in the Field Training of KSU Geophysics students-summer Field Trip course, Al Baha area, Saudi Arabia.
- 2012 Participating with the team work the field trip for exploration of water sources in the AL-Rub-Al-Khali area, Saudi Arabia.
- 2012 Participating in the 1st joint international workshop for the earth`s surface and subsurface 4d monitoring
Participating with the scientific team in field trip to Al Ayas and Harrat Lunneir, Saudi Arabia, to update the geological map of the area with Saudi Geological Survey Team.
Participating in the preparatory meeting for the first scientific conference for Higher education students.
- 2020- till Now Director of Graduate unit, College of Science, King Saud University
- 2021 Member in the Field trip committee, College of Science, King Saud University.
- 2021- till Now Director of Students affairs committee, Geology and Geophysics, College of Science, King Saud University since
- 2022 Supervisor for the Summer course (Field Trip) for students of Geology and Geophysics Dept., College of Science, King Saud University

Local & International conferences

- The 7th Assembly of Arab Conference on Astronomy and Geophysics, October 11-14, 2021, Cairo, Egypt
- The Seismological Society of America (SSA) conference of 2018, Miami, FL. USA.
- The 7th conference for the Saudi Society for Geosciences, Riyadh, Saudi Arabia
- The 8th conference for the Saudi Society for Geosciences, Riyadh, Saudi Arabia
- The 1st Conference for geological Sciences, Riyadh, Saudi Arabia
- American Geophysical Union (AGU) conference of 2017, New Orleans,

Scientific Membership:

- Member in Saudi Society for Geosciences (SSG) since 2006.
- Member in the American Geophysical Union (AGU) since 2016.
- Member in the Seismological Society of America (SSA) since 2016.
- Member in the Empty Quarter Research Chair.