



## Curriculum Vita (CV)

**Dr. Hadi Gerivani**

Assistant Professor in Marine Geology

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Date of birth: 1981



### Academic Background

- Ph.D. in Engineering Geology, Faculty of Sciences, Ferdowsi University of Mashhad. 2009-2013. (Assessment of using ambient noise as a tool for hydrocarbon reservoir investigation- case study on Gavazhin gas reservoir in Qeshm Island).
- M.Sc. in Engineering Geology, Faculty of Sciences, The University of Tarbiat Modares, 2004-2006. (Investigation of engineering properties of soft rocks in Khark Island using the Menard-Type pressuremeter).
- B.Sc. in Geology, Faculty of Sciences, The University of Shahid Beheshti 2000-2004

### Positions & Work Experiences & Memberships

- Head of Marine Non-Living Science Department in INIOAS from 2016 up to 2019.
- Manager of Industrial Relation Office in INIOAS from 2015 -2016.
- Assistant Professor INIOAS). From 2015 up to Now.
- Research Member in International Institute of Earthquake Engineering and Seismology (IIEES). 2006- 2014.
- Member of the Iranian Engineering Geology Association (IREG).
- Member of the Iranian Earthquake Engineering Association (IEEA).

### Teaching Experiences

- Course of Engineering Geology (Payam Nour University).
- Course of Applied Engineering Geology (Payam Nour University).

## Research Activities

### Projects:

- Investigations of gas hydrate resources in the Gulf of Oman. Project manager. Funded by Iranian Research Institute of Petroleum Industry (RIPI). Including 4 stages: 1- detecting hydrocarbon slicks on the sea surface using satellite SAR images, 2-investigation of gas bubbles in water column using multibeam echosounder 3- Physico-chemical properties of water column measured by CTD (for thermodynamic modeling) 4- Core sampling to hunt free and hydrate gases (for geochemical analysis). (2021- 2024)
- Comparative Research of Fluid Geodynamics of the Middle and South Caspian Sedimentary Basins: Joint research implemented in Iranian National Institute of Oceanography and Atmospheric Sciences (INIOAS) and Russian Shirshov Institute of Oceanology, funded by Iranian National Science Foundation and Russian Foundation for Basic Research (RFBR). (2018-2020)
- Paleo-earthquake investigation based on deep submarine turbidite sediments: case study in the eastern side of southern Caspian Sea
- Geotechnical classification of seabed sediments in northern part of Persian Gulf
- Assessment of national capability in offshore geotechnical investigation and feasibility study of developing geotechnical equipment for water environment
- Feasibility study of constructing subsurface dams based on the local geology and climate in the Kermanshah Province
- Caspian Sea Monitoring and Data Processing. Iranian National Institute for Oceanography. (Member of research team).
- Caspian Sea Monitoring and Data Processing. Iranian National Institute for Oceanography. (Member of research team).
- Establishing urban rules and regulations in order to increase safety against earthquake hazard in Tehran and developing related policies and guidelines for providing the Tehran comprehensive plan. International Institute of

- Earthquake Engineering and Seismology. 2005. (Member of research team).
- Geotechnical Hazard Microzonation of Qom City. International Institute of Earthquake Engineering and Seismology. 2006. (Member of research team).
- Seismic and Geotechnical Hazard Microzonation of Iranian Pars Gas and Oil Field (South of Iran) "Site 3 PARS",
- Prepared for Iranian Petrochemical Industry Deputy. International Institute of Earthquake Engineering and Seismology. 2007. (Member of research team).
- Seismic and Geotechnical Hazard Studies of Site of Holy Shrin of Emam Reza (Mashhad City- Iran). International Institute of Earthquake Engineering and Seismology. 2007. (Member of research team).
- Seismic Hazard and Geotechnical Hazard Zonation of "Qeshm Island" and Microzonation of Dargahan and Qeshm cities. International Institute of Earthquake Engineering and Seismology. (Member of research team).
- Seismic and Geotechnical Microzonation of Bushehr city. International Institute of Earthquake Engineering and Sesmology.
- Liquefaction Zonation of South Coastline of IRAN. International Institute of Earthquake Engineering and Seismology. (Member of research team).
- Preparation of Guideline for Geophysical Surveys of Road Projects. International Institute of Earthquake

### **Journal Papers:**

**Gerivani, H.**, Beni, A.N., Leroy, S.A. and Lahijani, H.K., 2024. Environmental history of the South Caspian Sea basin and its relation to the Siberian High dynamics since 14,000 years ago. *Marine Geology*, p.107356.

Putans, V.A. and **Gerivani, H.**, 2024. Modern tectonic events in near-bottom sediments of the Middle Caspian Sea. *International Journal Of Coastal, Offshore And Environmental Engineering (ijcoe)*, 9(1), pp.25-30.

**Gerivani, H.**, 2023. Geochemical and sedimentary evidences of a cold and dry climate occurred in around 4000 BP in the Southern Caspian Sea. *Journal of Oceanography*, 14(54), pp.76-86.

- Gerivani, H.**, Putans, V.A., Merklin, L.R. and Modarres, M.H., 2021. Characteristics of features formed by gas hydrate and free gas in the continental slope and abyssal plain of the Middle Caspian Sea. *Marine Georesources & Geotechnology*, pp.1-12.
- Ivanov A.Yu., **Gerivani H.**, Evtushenko N.V. (2020) Characterization of natural hydrocarbon seepage in the South Caspian Sea off Iran using satellite SAR and geological data // *Marine Georesources & Geotechnology*. 2020. P. 1-12. doi.org/10.1080/1064119X.2019.1600175
- Ivanov, A.Y. and **Gerivani, H.**, 2021. Oil leaking and seeping site in the Persian Gulf detected and studied by satellite observations. *Marine Georesources & Geotechnology*, pp.1-15.
- Gerivani, H.**, Stephenson, W. and Afarin, M., 2020. Sea cliff instability hazard assessment for coastal management in Chabahar, Iran. *Journal of Coastal Conservation*, 24(1), pp.1-17.
- Gerivani, H.** and Savari, S., 2020. Using plants distribution pattern to determine potentially unstable zone on the top of sea cliffs in Gurdim (Gulf of Oman, Iran). *Arabian Journal of Geosciences*, 13(13), pp.1-9.
- Gerivani, H.** and Savari, S., 2019. Influence of wave force direction on cliff profiles: formulation and observation in a case of horizontally layered cliffs in the northern coast of Gulf of Oman. *Arabian Journal of Geosciences*, 12(16), p.498.
- Gerivani, H.**, 2018. On the role of silt size particles in the Atterberg limits: observations in seabed sediments of the Persian Gulf.
- Gerivani H.**, and Gerivani B.H., 2017. Potential Map of Gas Hydrate Formation in Caspian Sea Based on Physicochemical Stability Evaluation of Methane Hydrate. *MARINE GEORESOURCES & GEOTECHNOLOGY*. 2017, VOL. 35, NO. 1, 136–142.
- Gerivani, H.** and Gerivani, B., 2016. Gas Hydrate in the Caspian Sea and Assessing the Effects of Global Warming on it. *Journal of Oceanography*, 7(26), pp.33-41.
- Aghadadashi, V., Neyestani, M.R., Mehdinia, A., Bakhtiari, A.R., Molaei, S., Farhangi, M., Esmaili, M., Marnani, H.R. and **Gerivani, H.**, 2019. Spatial distribution and vertical profile of heavy metals in marine sediments around Iran's special economic

energy zone; Arsenic as an enriched contaminant. Marine pollution bulletin, 138, pp.437-450.

**Gerivani, H.**, Naderi Bani, A., Pourkerman, M. and Amjadi, S., 2017. Effect of Organic and Carbonate Content on Liquid and Plastic Limits of Seabed Soils in the Northern Persian Gulf. Journal of Oceanography, 8(29), pp.9-15.

Ghafarian P., Gholami S., Ovladand E., **Gerivani H.**, 2016. Rainfall–runoff temporal variability in Kermanshah province, Iran and distinguishing anthropogenic effects from climatic effects. J. Earth Syst. Sci., DOI 10.1007/s12040-016-0731-9, 125, No. 6, August 2016, pp. 1299–1311.

**Gerivani H.**, Lashkaripour G.R., Ghafoori M. and Jalali N. (2010) "The source of dust storm in Iran: a case study based on geological information and rainfall data" Carpathian Journal of Earth and Environmental Sciences, Romania.

Askari F., and **Gerivani H.**, 2010 “Liquefaction hazard of TEHRAN based on past studies’ Geosciences, Geological Survey of Iran.(farsi)

Askari, F., **Gerivani, H.**, and Haghshenas, E., 2010 “Liquefaction Hazard Zonation in Qeshm Island and Microzonation in Qeshm and Dargahan Towns” Journal of Iranian Association of Engineering Geology (farsi)

**Gerivani H.**, Haghshenas E., Hafezi Moghaddas N., Ghafoori M., Lashkaripour G.R., 2012 “Frequency–amplitude range of hydrocarbon microtremors and a discussion on their source” J. Geophys. Eng. 9 (2012) 632–641.UK.

**Gerivani, H.**, Hafezi Moghaddas, N., Haghshenas, E. and Abdollahi Fard, E., 2015. Sustainability Assessment Review of Application of Microtremors for Detecting and Studying Hydrocarbon Reservoirs. Journal of Geoscience, 24(1393), pp.29-40.

### Conference Papers:

**Hadi Gerivani**, Victoria Putans (2022) Tectonic control on distribution of gas hydrates in the shallow sediments of the deep southern Caspian Basin. XXIV International Scientific conference (School) on marine geology

- Hadi Gerivani**, Vicrotia Putans (2022) Trace of historical earthquake events on the shallow sediments of the southern Caspian Basin. XXIV International Scientific conference (School) on marine geology
- Hadi Gerivani**, Hamid A.K. Lahijani, Victoria Putans () Evidences of the so-called 4.2 climate event observed in the cores collected from the southern Caspian Basin. Conference on Climate change in the Caspian Sea region. 27-28 Oct. 2021.
- Gerivani H.**, Putans V., Ivanov A. Hydrocarbon fluid seepage controlled by active tectonic: Observations in the Derbent Basin of the Caspian Sea. XXIII International scientific conference “Marine geology school” Moscow, 8 - 22 November 2019 <http://geoschool.ocean.ru/>
- Putans V.A., Merklin L.R., **Gerivani H.** (2019) *Seismoacoustic evidence of modern fluid dynamic activity on the Caspian Sea. Seabed Acoustics November 14/15. Rostok-Warnemunde. 2019.* <https://www.innomar.com/seabed-acoustics-2019.php>
- Gerivani H.**, Haghshenas E., and Hafezi Moghaddas N., 2012 “Ambient noise study over a gas field in Qeshm Island” 15th world conference on earthquake engineering. Lisbon.
- Haghshenas E., Rahmani I., **Gerivani H.** and Rakhshandeh M., 2010. ‘Liquifaction hazard zonation in southern coustal of Iran by using satelite images’ 4th international confereense of Geotechnics and Soil Mechanics, Tehran, Iran.
- Gerivani, H.**, Nikodel, M.R., Pahavan, B.,”*Comparison of Pressuremeter and Uniaxial Test (Rigidity and Deformation Parameters) in Aghajari Formation Soft Rocks*” 4th Iranian Conference on Engineering Geology and the Environment. Tehran, Iran, Trbiat Modaress University, 2006.(Farsi)
- Gerivani, H.**, Haghshenas, E., “*Engineering Geology Map of Gheshm Island (Iran) by Special Usage in Seismic Geotechnical Hazard zonation*” 5th Iranian Conference on Engineering Geology Engineering and the Environment. Tehran, Iran, Tarbiat Moallem University, 2008.(Farsi)
- Gerivani, H.**, Keshavarz, M., “Increasing in seismic activity in Qeshm Island during resent years” 6th Iranian Conference on Engineering Geology and the Environment. Tehran, Iran, Trbiat Modaress University, 2009.(farsi)

**Gerivani, H.**, Nikodel, M.R., Pahavan, B.,”*Comparison between Bearing Capacity determined by Pressuremeter and Uniaxial tests, in Aghajari formation’s soft rocks*” 6th Iranian Conference on Engineering Geology and the Environment. Tehran, Iran

**Gerivani, H.**, Nikodel, M.R., Pahavan, B., 2006 “*Comparison of Pressuremeter Tests in Deferent Type of Soft Rocks in Aghajari Formation in Khark Island (Iran)*” 8th Iranian Conference on Geology. Tehran, Iran, Trbiat Moallem University, 2006.(Farsi)

Haghshenas E., **Gerivani H.**, Shafiee A. and Safayeean Amoli R. 2011 “*Regional site effect zonation in Qeshm Island (Iran). 6th international conference on Seismology and Earthquake engineering, Tehran Iran.*

### Softwares

- ArcGIS
- MATLAB
- Rockware
- Geopsy
- Mike (preliminary)
- Abaqus (preliminary)

### Books:

- An Introduction to Offshore Geotechnical and Geophysical Surveys (2022)(Farsi)
- Manual for Geophysical studies in Road Construction Project. No. 702-1. Iranian Management and Planning Organization. Office of Deputy for Technical and Infrastructure Development Affairs (2014)(Farsi).