

PERSONAL INFORMATION**Dr. Umair Bin Nisar**

📍 Centre for Climate Research and Development (CCRD), COMSATS University Islamabad, Park Road, Islamabad 44000, Pakistan
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WORK EXPERIENCE

January 2023 to Present

Assistant Professor**Job Description**

- Involved in teaching and research
- Thesis supervision
- Member of departmental Admission Committee
- Any other task assigned by Head CCRD

August 2019-January 2023

Lecturer**Job Description**

Centre for Climate Research and Development (CCRD)
COMSATS University Islamabad, Pakistan.

- Involved in teaching and research activities related to water and climate change
- Involved in proposal writing for different funding agencies
- Member of Seminar Organizing Committee
- Coordinator CCRD Website
- CCRD Coordinator for UIBN
- Incharge CCRD Facebook page
- Any other task assigned by Head CCRD

December 2011 – August 2019

Lecturer**Job Description**

Department of Earth Sciences, COMSATS University Islamabad, Abbottabad Campus, Pakistan

- Involved in extensive teaching of geological and geophysical subjects (Seismic Exploration, Introduction to geophysics, Well logging, Sequence Stratigraphy, Resistivity Methods, Petroleum Geology, Seismic Stratigraphy, Hydrogeology)
- Supervision of BS student thesis
- Seminar Conduction
- Worked as member of BS project evaluation committee
- Incharge Geophysical field trips for students
- Worked as Departmental Coordinator
- Departmental Sports coordinator

December 2010 – December 2011

Research Associate**Job Description**

Department of Earth Sciences, COMSATS University Islamabad, Abbottabad Campus, Pakistan

- Teaching and managing labs for senior faculty members
- BS thesis supervision
- Involved in research projects

Spectrum Geo Limited

- Job Description
- Involved in various local and international seismic data processing projects
 - Data loading, Geometry building, Refraction statics, deconvolution, Velocity picking, migration

May 2007 – July 2007 Field Geophysicist

- Job Description
- Involved in managing the seismic layout, drilling crew, layout crew and survey crew

EDUCATION

2019 Ph.D. (Geology / Hydrogeology)
Institute of Geology, University of Azad Jammu and Kashmir, Muzaffarabad, Azad Kashmir, Pakistan
Ph.D. Dissertation entitled 'Impact of Hattar Industrial Estate on Groundwater Resources and its Environment in Haripur Basin, Pakistan: An Integrated Geophysical Approach

2009 – 2011 M.Phil (Geophysics)
Department of Earth Sciences, Quaid-I- Azam University, Islamabad, Pakistan
M.Phil Dissertation entitled 'Structural and stratigraphic interpretation of Dhulian Oil Field by using Seismic and Well log data

2005-2007 M.Sc. (Geophysics)
Department of Earth Sciences, Quaid-I- Azam University, Islamabad, Pakistan
M.Sc. Dissertation entitled 'Structural and stratigraphic interpretation of Tajjal area, Lower Indus basin by using Seismic and Well log data.

PERSONAL SKILLS

- Communication skills
- Strong interpersonal and communication skills
 - Professional, articulate and confident speaking abilities

- Projects/consultancies
- Aquifer modelling and vulnerability for Haripur basin, demarcation of subsurface channels that transport contaminant from stream banks into shallow aquifer system. The data sets were constrained by using borehole, VES and Hydrochemical results.
 - Detection of subsurface lithologies and bed rock detection by using Electrical resistivity tomography for road widening in Vicinity of Chitral area in Khyber Pakhtukhuwa Province of Pakistan.
 - Acquisition processing and interpretation of Electrical resistivity tomography data in vicinity of Essakhel, Punjab for delineation of subsurface cavities before construction of cement factory.
 - Provision of online consultancy to hydrological company in Qatar for detection and alteration of flow of contaminants in the aquifer system.
 - Acquisition, processing and interpretation of Vertical electrical resistivity sounding data for delineation of tube well sites in Mansehra, Kp, under the flagship of Al-Khidmat foundation (local NGO).
 - Seismic Hazard Assessment and Site characterization for DHA Quetta

ADDITIONAL INFORMATION

Published Articles

- **Nisar, U.B.** et al., 2023. Integrated Geoelectrical and Geological Investigation of a Quaternary Paleo-Depositional Environment in the Haripur Basin, Northern Pakistan: Implications for Groundwater System. *Geofluids*, 2023.
- **Nisar, U.B.** et al., 2023. Integrated Geophysical and Geotechnical Approaches for Evaluating Dam Seepage in Lesser Himalayan Region of Pakistan. *Geofluids*, 2023.
- Niaz, A., **Nisar, U.B.** et al., 2023. Flood modelling and its impacts on groundwater vulnerability in sub-Himalayan region of Pakistan: integration between HEC-RAS and geophysical techniques. *Geomatics, Natural Hazards and Risk*, 14(1), p.2257360.
- Ahmed, T., Ahmed, M., Naz, S., **Nisar, U.B.** and Zahir, M., 2023. Water quality, governance issues, people's perception and water distribution network management through integrated techniques under changing climate. *Urban Climate*, 51, p.101661.
- Daud, S., MonaLisa. and **Nisar, U.B.**, 2022. Integrated geophysical, geochemical, and geospatial tools to characterize water resources in GAIE, Eastern Peshawar basin, Pakistan. *Environmental Earth Sciences*, 81(15), pp.1-19.
- Khan, S., **Nisar, U.B.**, Hussain, A., Ahmad, N. and Siddique, B., 2022. Hydrological investigation of subsurface Glacial Lake Outburst Floods at Bindo Gol Valley under changing climate, Pakistan. *Journal of Applied Geophysics*, p.104633.
- Farooq, M., **Nisar, U.B.**, Khan, S., Jalees, T., Mughal, M.R., Ali, L. and Ahmed, T., 2022. Electrical resistivity tomography for delineating groundwater potential zones in fractured metasedimentary rocks, Lesser Himalayas, Pakistan. *Journal of Earth System Science*, 131(2), pp.1-14.
- Daud, S., Lisa, M., **Nisar, UB.** and Sipra, H., 2022. Hydrochemical and geophysical appraisal for effects of Gadoon Amazai Industrial Estate on water resources, Swabi District, Pakistan. *DESALINATION AND WATER TREATMENT*, 246, pp.265-279.
- **Nisar, U.B.**, M.R., Khan, Farooq, M et al. 2021, Groundwater investigations in the Hattar Industrial Estate and its vicinity, Haripur district, Pakistan: An integrated approach *Kuwait Journal of science*.48(1),pp.51-61. 10.48129/kjs.v48i1.7820.
- EHSAN, S.A., Khan, M.J., **Nisar, U.B.**, Syed, S.A., Qazi, H.H. and Khan, S., 2021. Delineating Weak Zones in Limestone based on Borehole Drilling and Electrical Resistivity Tomography. *Kuwait Journal of Science*.10.48129/kjs.14773.
- Khan, S., **Nisar, U.B.**, Ehsan, S.A., Farid, A., Shahzad, S.M., Qazi, H.H., Khan, M.J. and Ahmed, T., 2021. Aquifer vulnerability and groundwater quality around Brahma Bahtar Lesser Himalayas Pakistan. *Environmental Earth Sciences*, 80(13), pp.1-13.
- Ahmed, K.A., Khan, S., **Nisar, U.B.**, Mughal, M.R. and Sultan, M., 2021. Machine seismic: an automatic approach for the identification of subsurface structural models. *Soft Computing*, pp.1-8.
- Khawar, A. A., Khan, S., Sultan M., **Nisar, U. B.** et al. 2020. Landslides assessment using geophysical and passive radon exhalation detection techniques in Murree Hills, northern Pakistan: Implication for environmental hazard assessment. *Journal of Earth system Sciences*.129, 53(2020). <https://doi.org/10.1007/s12040-019-1327-y>
- **Nisar, U. B.**, Khan, R. M. Rizwan, 2019. Identification of sealing potential through fault seal analysis: a case study of Badin area, Lower Indus Basin, Pakistan. *GEOFISICA INTERNACIONAL*. 58-2: 139-150.
- **Nisar, U.B.**, Khan, M.R., Khan, S., Farooq, M., Mughal, M.R., Ahmed, K.A., Razzaq, S.S. and Niaz, A., 2018. Quaternary Paleo-depositional Environments in relation to Ground water occurrence in lesser Himalayan Region, Pakistan. *Journal of Himalayan Earth Sciences Volume*, 51(1), pp.99-112.

ADDITIONAL INFORMATION

Conference Abstracts

- Junaid Alam, **Umair Bin Nisar**, Abrar Ahmed, Muhammad Farooq, Muhammad Rustam Khan, Aurangzeb Jadoon, Amir Shahzad and Syed Amjad Ali Bukhari. **2016**. Integrated Geophysical techniques for ground water exploration in lesser Himalayan region: A case study from Haripur region. Abstract Volume: Earth Sciences Pakistan 2016 (July 15-17), Baragali Summer Campus, University of Peshawar, Journal of Himalayan Earth Sciences, p. 20.
- **Umair Bin Nisar**, Mona Lisa, Syed Amjad Ali Bukhari, **2014**. Seismic Attribute analysis of dhulian area, upper Indus basin Pakistan by using seismic and well log data. Abstract Volume: Earth Sciences Pakistan 2014 (August 29-31), Baragali Summer Campus, University of Peshawar, Journal of Himalayan Earth Sciences, p. 101.
- **Umair Bin Nisar**, Jabir Nazir, Muhammad Rustam Khan, Naqash Mehmood and Amir Shahzad, 2016. Fault Seal Analysis to identify sealing potential of a fault: A case study of Badin area lower Indus basin, Pakistan. Abstract Volume: Earth Sciences Pakistan **2016** (July 15-17), Baragali Summer Campus, University of Peshawar, Journal of Himalayan Earth Sciences, p. 115.
- **Umair Bin Nisar**, Muhammad Farooq, Naqash Mehmood, Jabir Nazir, Sarfraz Khan, and Aurangzeb Jadoon, **2016**. Integrated geophysical techniques for structural interpretation and characterization of Eocene reservoir, Indus offshore, Pakistan. Abstract Volume: Earth Sciences Pakistan 2016 (July 15-17), Baragali Summer Campus, University of Peshawar, Journal of Himalayan Earth Sciences, p. 116.

News Paper articles

- <https://pakobserver.net/face-masks-and-covid-19-by-dr-umair-bin-nisar>

Academic Research Projects

- Working as a Co-Principal Investigator in National Research Program for Universities (NRPU) funded project entitled " identification of groundwater potential and quality of Muzaffarabad, Rawalakot and Bagh Cities of Azad Jammu and Kashmir , Pakistan by integrated resistivity and Hydrochemical Analysis worth 3.91 million Rupee.
- Working as a Co-PI in National Research Program for Universities (NRPU) funded project entitled "Identification of Groundwater Recharge zones in twin cities of Pakistan: Geophysical and GIS/RS Approaches" worth 3.56 million Rupee.

Seminars and Trainings

- Organized Training Workshop on water conservation with emphasis on academia and industrial linkages
- Organized seminar on ""Achieving Net Zero: Where CUI Stands" on 22nd June 2022
- Organized seminar on ""The Risk Factors for Adverse Outcomes with COVID-19 Infections & Its Management" on 17th February, 2022
- Participated in "Summer Geophysical Training Workshop" organized by Pakistan Geophysical Network at Department of Earth Sciences, Quaid-i-Azam University Islamabad from 5th to 30th July 2010.
- Participated in one day training entitled "Brand Yourself" organised by Pakistan Association of Petroleum Geoscientists on February 10, 2018 in Islamabad
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ADDITIONAL INFORMATION

Seminars and Trainings

- Participated in Second Pre-Service Training Course in Faculty Development Academy, COMSATS Secretariat from 02-27 January, 2012.
 - Completed Hands on training on “Climate Change Impact Assessment and Adaptation Strategies for Wheat and Groundwater production using Decision Support System” on 4th -5th September, 2019, organized by Department of Agronomy, PMAS-Arid Agriculture University, Rawalpindi.
 - Organized one day Seminar on “ Sustainable Alternatives to Plastic Bags: Conserving Environment” on 03, October, 2019 at Centre for Climate Research and Development COMSATS University Islamabad
 - Organized one day Seminar on “Awareness and Management of Parthenium Weed” at Centre for Climate Research and Development (CCRD) in coordination with CABI on 25th November, 2019.
 - Organized workshop on “Gaming Climate Change in collaboration with Centre for Policy Studies at COMSATS University Islamabad on 23rd December, 2021
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References

- Will be Furnished on demand.