

PERSONAL INFORMATION

Dr. Umair Bin Nisar

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WORK EXPERIENCE

January 2023—Date

Assistant Professor

Job Description

Department of Meteorology

- Involved in teaching, providing integrated training for students and professionals, research activities related to water, agriculture and climate change and geospatial techniques that address the effects of climate change on water, disease and food security.
- MS project Supervision
- Departmental Coordinator for Upper Indus Basin Network (UIBN), active participant and academic representative of thematic working group on glaciers and hydrology.

Lecturer

August 2019—January 2023

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

Job Description

- Involved in teaching, research activities related to water and climate change that address the effects of climate change on health, water and food security.
- Actively organized seminars with emphasis on water pollution and its effects on the common population.
- CCRD Coordinator for Upper Indus Basin Network (UIBN), active participant and academic representative of thematic working group on glaciers and hydrology. Represented CCRD in conferences under the flagship of UIBN.
- Brief the Facebook community about the climate updates and importance of water for energy food and security nexus.
- Article writer for local newspaper regarding current climatic and Covid-19 scenarios
- Any other task assigned by Head CCRD

December 2011 – August 2019

Lecturer

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

Job Description

- 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
- Organizer of seminar and talks for departmental students
- 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

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

July 2007 – March 2009

Processing Geophysicist

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

LPEB Fecto-Cosail (JV)

Job Description

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

PERSONAL SKILLS

Communication skills

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

Projects

- Project lead on Geospatial Impacts of Climatic Variables on Wheat Crop Yield Across Sindh and Balochistan a local study for food and security funded by CRGP.
- Project lead on "water-based health risk assessment in the vicinity of Gadon Amazai industrial estate using geospatial and hydrochemical techniques" funded by CRGP.
- Project lead on integration between geospatial and geophysical techniques to demarcate groundwater recharge zones in twin cities of Islamabad and Rawalpindi. Funded by HEC-NRPU.
- Member in a project entitled "Sustainable Bio Energy development in emerging economies under global changes: current practice, perception, response and management" awarded by Pakistan Science Foundation. The project focuses on potential of bioenergy in crop producing areas of Pakistan.
- Co-lead in project entitled "Interaction of surface and groundwater resources based on geospatial mapping and geophysics in the vicinity of Bagh District Azad Kashmir. Funded by HEC-NRPU.
- Acquisition, processing and interpretation of Electrical resistivity tomography data in vicinity of Essa-Khel, Punjab for delineation of subsurface cavities before construction of cement factory (One month Project).

EDUCATION

2019

Ph.D. (Geology)

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 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'

Publications

- **Nisar, U.B.**, ur Rehman, W., Saleem, S., Taufail, K., ur Rehman, F., Farooq, M. and Ehsan, S.A., 2024. Assessment of water quality using entropy-weighted quality index, statistical methods and electrical resistivity tomography, Moti village, northern Pakistan. *Journal of Contaminant Hydrology*, 264, p.104368.
- **Nisar, U.B.**, Ehsan, S.A., Rafiq, M.I. and Mughal, M.R., 2024. Integrated study for assessing groundwater dynamics of the Dehdan village, Haripur Basin, Pakistan. *Journal of Applied Geophysics*, p.105419.
- Daud, S., Lisa, M., **Nisar, U.B.**, Tanoli, J.I. and Ali, M., 2024. Groundwater characteristics using geophysical, geospatial, and hydrogeological studies in Peshawar Basin, Pakistan. *Environmental Earth Sciences*, 83(7), p.200.
- Khan, A.Y., Niaz, A. and **Nisar, U.B.**, 2024. Multi-dimensional characterization of groundwater distribution in sub-Himalayan region of Pakistan. *Environmental Earth Sciences*, 83(2), p.64.
- Niaz, A., **Nisar, U.B.**, Khan, S., Faiz, R., Javed, A., Niaz, J., Aaqib, M., Raza, M. and Bhusal, B., 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), p.390.
- Ahmed, T., **Nisar, U.B.**, Khan, S., Abid, M., Zahir, M., Murtaza, R. and Sagin, J., 2022. Effects of water qualities of Kabul River on health, agriculture and aquatic life under changing climate. *Desalination and Water Treatment*, 252, pp.319-331.
- 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*, 201, p.104633.
- **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
- 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, 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.
- Khan, S., **Nisar, U. B.** 2018. Is Ziarat a potential site for conventional or Unconventional energy resources?.*Acta Geologica Sinica (English Edition)*. 92(4). 1544-1557.
- Niaz, A., Khan, M.R., Nisar, U.B., Khan, S., Mustafa, S., Hameed, F., Mughal, M.S., Farooq, M. and Rizwan, M., 2017. The study of aquifers potential and contamination based on geoelectric technique and chemical analysis in

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**, 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.

Seminars and Trainings

- One day hands on training on waste to energy at CUI under "Sustainable Bioenergy development" project by PSF as a lead organizer on 8th June 2023 (Team member).
- Provided training workshop on Geospatial Techniques to Understand the Urban Architecture and Planning at Institute of Architecture Pakistan.
- Talk related to RS-GIS and GEE at the training workshop titled "Remote Sensing and Cloud-Based Solutions for Climate Data Analysis" for climate experts, urban planners, architects, engineers, researchers, students, and other stakeholders to foster the understanding about the latest tools and methods for analyzing and visualizing the climate data using cloud computing and geospatial technologies.
- Inception workshop under "Sustainable bioenergy development" project by CUI on 7th Sep 2022 (team member)
- Race to Zero event organized at CUI, Islamabad campus on 26th October 2022 (Lead organizer)
- Completed Hands on training on "Climate Change Impact Assessment and Adaptation Strategies for Wheat and Groundnut 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 poster competition on plastics and environmental conservation: on 03, October 2019 at COMSATS University Islamabad. 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.
- Participated in Second Pre-Service Training Course in Faculty Development Academy, COMSATS Secretariat from 02-27 January, 2012
- Participated in one day training entitled "Brand Yourself" organised by Pakistan Association of Petroleum Geoscientists on February 10, 2018 in Islamabad.

References

Will be furnished on demand