

# Dr. Ihtisham Islam

Professional  
Engineering Geologist,  
Administrator,  
University Lecturer,  
Deputy Provost  
Warden

## Contact

### Address

Peshawar, Pakistan 25120

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ihfisham.islam@sbbu.edu.pk

## Skills

MS Office suite, Geological mapping, Geological data and samples collection, Petrography, Slope W, ERT, GPR, Tromino. GIS (Geographic information system, (Digitization, Analysis, Risk Hazard and susceptibility analysis), Corel Draw, Google Earth, Rad Explorer, 1XDX, IPI2 WIN.

Excellent

## Websites, Portfolios, Profiles

- <https://scholar.google.co>

Dynamic 11 years of successful administration, teaching, and fieldwork experience with 35 International publications. Known for interesting lectures with helpful support materials and detail-oriented classroom management, along with administrative skills as a warden, member of the disciplinary committee and all financial responsibilities of the department. Also Dedicated to individual student success and comprehensive understanding in geological and geophysical fieldwork and laboratory research work. Managing different geological sites a supervisory geotechnical engineer in ongoing mega projects of Pakistan.

## Work History

2014-

Current

### Lecturer, Engineering Geology/Soil mechanics/Geophysics/Administrator

*Department Of Geology, Shaheed Benazir Bhutto University Sheringal Dir, Dir Upper*

- Evaluated and revised lesson plans and course content to achieve student-centered learning.
- Used variety of learning modalities and support materials to facilitate learning process and accentuate presentations.
- Participated in conferences and professional development opportunities to stay up-to-date with latest trends in field.
- Supervised 2 Mphil and more than 150 undergraduate geology research in Geotechnical, Engineering Geology, Near surface applied Geophysics while completing site suitability studies over course of project.
- Gathered geotechnical and geophysical data to determine geological relationships in regional context. Also supervised drilling activities on site.
- Helped to solve geology-related issues at landslides sites using mapping and geotechnical assessment techniques using geochemical approaches.
- Conducted various geological fieldworks explorations with staff and students in northern Pakistan Himalayan locations for long-term planning purposes like feasibility for tunnels, bridges, minerals exploration, landslides prevention, drinking water

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AAAAJ&hl=en&oi=ao

- <https://pk.linkedin.com/in/ihisham-islam-0621a262>
- <https://sbbu.edu.pk/departments/geology/faculty.php>

exploration, hydrogeophysics.

### **Warden/Deputy Provost/Administrator**

- Remained warden of Hostels at University campus as an additional responsibility from a period of last 5 years.
- Manages all administrative responsibilities of resident hostels at campus

2012-2014

### **Site Geotechnical Engineer/ Engineering Geologist**

*Task International Pvt Ltd, Peshawar*

- Performed geotechnical analysis to assess construction site conditions for clients like FWO, NESPAK Pakistan.
- Performed Geophysical surveys like Ground penetrating Radar, Electrical Resistivity techniques for near surface engineering assessments.
- Interacted with state and local agencies concerning compliance with codes and regulations.
- Reviewed calculations and analytical data to maintain accuracy of technical reports.
- Analyzed waterways to identify engineering problems and recommended corrective actions.
- Tested soils and materials to determine foundation strength.
- Visited project sites during construction to monitor progress and consult with contractors and on-site engineers.
- Observed and supervised drilling activities

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## **Education**

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### **Ph.D.: Geology (Engineering Geology)**

*National Centre of Excellence in Geology - University Of Peshawar, Pakistan*

PhD Research topic is "Role of geochemistry and discontinuities patterns in triggering mechanism of landslides, Dir Upper KP Pakistan"

## **Master of Science: Engineering Geology/Geophysics/Geotechnical**

*National Centre of Excellence in Geology - University  
Of Peshawar*

MS completed with 3.9/4.0 CGPA.

MS research topic "Geophysical and Geotechnical  
characterization of shallow subsurface soils, Peshawar,  
Pakistan"

## **Bachelor of Science: Geology**

*Department of Geology - University Of Peshawar*

BS completed with first division A grade, scoring  
2023/2800 marks.

BS research entitles "Petrography and  
physicomechanical properties of Kumrat Granites, Dir  
upper, Pakistan"

## **H.S.S.C: Engineering (Pre-Engineering)**

*Islamia College Peshawar - Peshawar Pakistan*

HSSC completed with first division, A grade.

## **Secondary School Certificate S.S.C: Science**

*University Public School - University Of Peshawar*

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## **Publications**

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### **Publications:**

1. Islam, Ihtisham, et al. "Investigating The Role Of  
Geochemistry And Geotechnical Properties In  
Landslide Characterization And Triggering  
Mechanisms: A Case Study From Dir Upper, Khyber  
Pakhtunkhwa Pakistan." *Physics and Chemistry of  
the Earth, Parts A/B/C* (2024): 103636.  
<https://doi.org/10.1016/j.pce.2024.103636> (Impact  
factor 3.7)
2. Land subsidence resulting from reservoir  
overexploitation and karez collapse in Mastung and  
Quetta districts, Baluchistan, Pakistan.  
*Environmental Earth Sciences* 83, 455 (2024).  
<https://doi.org/10.1007/s12665-024-11774-0>

3. Sedimentology and reservoir characterization of Upper Cretaceous Kawagarh Formation, Upper Indus Basin, Lesser Himalayas, Pakistan: inferences from petrography, SEM-EDS and petrophysics. *Carbonates Evaporites* 39, 72 (2024).  
<https://doi.org/10.1007/s13146-024-00984-z> (Impact factor 1.5)
4. Deterministic seismic hazard assessment of a long mountainous road tunnel: a case study of Lowari Tunnel, Pakistan. *Environ Earth Sci* 83, 303 (2024).  
<https://doi.org/10.1007/s12665-024-11625-y> (Impact factor 3.1)
5. Integrated sedimentary and diagenetic constraints for delineating the reservoir potential of Jurassic carbonate sequences in the autochthonous Samana Suk Formation, Attock-Cherat Nizampur Area, Pakistan. *Carbonates Evaporites* 39, 51 (2024).  
<https://doi.org/10.1007/s13146-024-00963-4>. (Impact factor 1.5)
6. Geographical distribution of radon and associated health risks in drinking water samples collected from the Mulazai area of Peshawar, Pakistan." *Scientific Reports* 14, no. 1 (2024): 6042.  
<https://doi.org/10.1038/s41598-024-55017-5> (Impact factor 4.6)
6. Ground motion hazard of the China Pakistan Economic Corridor (CPEC) routes in Pakistan. *Progress in Earth and Planetary Science* 2023, 10(27),  
<https://doi.org/10.1186/s40645-023-00559-x>. (Impact factor 4.1)
7. Lowari Tunnel Water Quality Evaluation: Implications for Tunnel Support, Potable Water Supply, and Irrigation in Northwestern Himalayas, Pakistan" *Applied Sciences* 2023, 13, no. 15: 8895.  
<https://doi.org/10.3390/app13158895> (Impact factor 2.7)
8. Assessment of Potential Potable Water Reserves in Islamabad, Pakistan Using Vertical Electrical Sounding Technique" *Hydrology* 2023, 10, no. 12: 217. (Impact factor 3.2)  
<https://doi.org/10.3390/hydrology10120217>
9. Petrographic and Geotechnical Features of Dir

Volcanics as Dimension Stone, Upper Dir, North Pakistan" *Geosciences* **2023**, 13, no. 8: 224.  
<https://doi.org/10.3390/geosciences13080224> (Impact factor 2.7)

10. Determination of Dynamic Properties of Fine-Grained Soils at High Cyclic Strains." *Geosciences* **2023**,13,7:204.  
<https://doi.org/10.3390/geosciences13070204> (Impact factor 2.7)

11. *Posidonia oceanica* Balls (Egagropili) from Kefalonia Island Evaluated as Alternative Biomass Source for Green Energy. *Journal of Marine Science and Engineering*. **2023**; 11(4):749.  
<https://doi.org/10.3390/jmse11040749> (Impact factor: 2.9)

12. Impact of Climate Change on the Stability of the Miacher Slope, Upper Hunza, Gilgit Baltistan, Pakistan." *Climate* **2023**, 11(05), 102.  
<https://doi.org/10.3390/cli11050102> (Impact factor 3.7)

13. An integrated petrographical and geochemical study of the Tredian Formation in the Salt and Trans-Indus Surghar ranges, North-West Pakistan: Implications for palaeoclimate. *The Depositional Record*, (**2023**) 00, 1–18. (Impact factor 2.5)  
<https://doi.org/10.1002/dep2.255>

14. The Evaluation of Non-Destructive Tests for the Strength and Physical Properties of Granite, Marble, and Sandstone: A Case Study from North Pakistan. *Quaternary* **2023**, 6(1).  
<https://doi.org/10.3390/quat6010004> (Impact factor 2.3)

15. Composition, Texture, and Weathering Controls on the Physical and Strength Properties of Selected Intrusive Igneous Rocks from Northern Pakistan. *Geosciences* **2022**, 12, 273.  
<https://doi.org/10.3390/geosciences12070273>. (Impact factor 2.7)

16. Pollutants Concentration during the Construction and Operation Stages of a Long Tunnel: A Case Study of Lowari Tunnel, (Dir–Chitral), Khyber Pakhtunkhwa, Pakistan. *Applied Sciences*. **2022**, 12, 6170.  
<https://doi.org/10.3390/app12126170> (Impact factor

2.83)

17. Exploring the potential of Eocene carbonates through petrographic, geochemical, and geotechnical analyses for their utilization as aggregates for engineering structures. *Arabian Journal of Geosciences* **2022**, 15:1105, <https://doi.org/10.1007/s12517-022-10383-0> (Impact factor 1.985)

18. Feasibility study of Dir Group volcanic rocks used as coarse aggregates in concrete and asphalt in Dir Upper, Khyber Pakhtunkhwa. Proceedings of the 1st International Conference on Recent Advances in Civil and Earthquake Engineering, 8th October, **2021**, Peshawar, Pakistan. (pp. 263-269)

19. Geophysical and geotechnical characterization of shallow subsurface soil: a case study of University of Peshawar and surrounding areas. *Arabian Journal of Geosciences* **2020**, 13:949, <https://doi.org/10.1007/s12517-020-05947-x> (Impact factor 1.985)

20. Factors Determining the Residents' Preparedness against Natural Disasters: A Case Study of Pakistan Flood-2010, *J. Environ. Agric. Sci.* (ISSN: 2313-8629), **2020**. 22(1): 32-40.

21. Soil fertility and nutrient management with the help of nanotechnology. In *Nanomaterials for Agriculture and Forestry Applications* (pp.273-287). Elsevier 2020.

22. Petrography and Physico-mechanical properties of the granitic rocks from Kumrat valley, Kohistan Batholith, NW Pakistan. *AshEse Journal of Physical Science* Vol.1 (1), pp. 001-008, April, **2015**. ISSN 2059-7827.

23. The comparative analysis of mechanical strength and petrographic features of andesite and basalt from Sawabi area, N-W Pakistan: Implications for construction engineering. *Journal of Mountain area research* 9(**2024**) 92-106. ISSN 2518-850X  
doi: <https://doi.org/10.53874/jmar.v9i0.199>.

**International Journals reviewer:**

1. Review manuscripts for *International Journal of Advanced and Applied Sciences*. Taiwan. EISSN2313-3724

2. Review manuscripts for *Scientific reports* Springer

- Nature. Scientific Reports ISSN 2045-2322.
3. Review manuscripts for Journal of Building Pathology and Rehabilitation Springer Nature. ISSN 2365-3167.
  4. Review manuscripts for Applied Sciences Springer Nature. Scientific Reports ISSN 2523-3971.
  5. Review manuscripts for Discover Materials Springer Nature. Scientific Reports ISSN 2730-7727.
  6. Review manuscripts for Iranian Journal of Science and Technology, Transactions of Civil Engineering. Springer Nature. ISSN 2364-1843
  7. Reviewer in Physics and chemistry of earth. Elsevier. ISSN 1474-7065.
  8. Reviewer of Frontiers in earth science.

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## Certifications

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2020-06	"Project management" from University of California, Irvine USA.
2020-07	"Our Earth" from The University of Manchester.
2020-06	"Introduction to GIS mapping" from University of Toronto, Canada.
2020-06	"University Teaching" from The University of Hong Kong.
2020-07	"Experimental Design Basics" from Arizona State University, USA.
2020-06	"Leading Teams" from University of Michigan, USA.
2020-06	"Understanding research methods" from University of London.
2020-07	"Data Scientist Tools box" from John Hopkins University, USA.
2020-08	"Academic Information seeking" from University of Copenhagen and Technical University of Denmark (DTU).
2020-08	"How to Write and Publish a Scientific Paper (Project-Centered Course)" from École Polytechnique France.