
PERSONAL	Name:	Mian Sohail Akram
	Date of Birth	18-01-1975
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	Address	Institute of Geology, University of the Punjab Quaid-e-Azam Campus, Lahore, Pakistan
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KEY QUALIFICATIONS:

- Sohail has been serving as Assistant Professor and Head of Applied Geosciences (Engineering Geology & Geophysics sections) in Institute of Geology, University of the Punjab, Lahore, Pakistan. Key subjects are engineering geology, rock mechanics, soil mechanics and geohydrology together with the supervision of M.Sc./ M. Phil and PhD research work and thesis writing. Also coordinated seminars/ technical workshops on hydrology, tunnels, slope stability and GIS. Sohail has supervised one (1) PhD research (submitted recently) and about thirty (30) M. Phil researches and thesis writing. About Ten (10) PhD and more than ten (10) M. Phil students are currently enrolled under his supervision.
- Overall Sohail has more than fifteen years' experience in the field of engineering geology, geotechnical engineering, and geomechanics. The area of expertise includes geotechnical, geological and geohydrological investigations, insitu testing, analysis and interpretation for the design of the surface and subsurface structures. In rock mechanics, the area of interest comprises of rock mass characterisation, classification and interpretation for the design of the slopes, shafts, tunnels, underground caverns etc. In addition, Sohail has a thorough experience of undertaking slope stability assessments based on the kinematic, statistical and empirical analyses together with the design of slope remediation measures.
- During his professional life, Sohail has worked in Afghanistan, Australia, Oman and Pakistan.
- Extensive experience in technical writing for desktop reviews, factual data, geological and geotechnical analyses and interpretations.

EDUCATION:

Ph.D. (Geomechanics) 2010, UNSW, Australia

M.Sc. (Applied Geology with Specialization in Engg. Geology), 2002, PU, Pakistan

B.Sc. (Hons- Applied Geology), 2000, PU, Pakistan

PROFESSIONAL AFFILIATIONS/ MEMBERSHIPS

- American Rock Mechanics Association (ARMA), Member
- Australian Geomechanics Society (AGS), Member
- European Association of Geoscientists & Engineers (EAGE), Member
- International Association of Engineering Geologists (IAEG) , Member
- International Society of Rock Mechanics (ISRM), Corresponding Member
- International Society for Soil Mechanics & Geotechnical Engineering (ISSMGE), Member
- Pakistan Geotechnical Engineering Society (PGES), Member
- Punjab Geological Society, Pakistan (PGS), Member

PROFESSIONAL TRAININGS

Name & Place	Type of training	Attended			
		From	To		
“Evaluation of Aggregate as a Construction Material” In Collaboration with the Ministry of Labour, Manpower & Overseas Pakistanis, and UNDP under TOKTEN Programme, held in Institute of Geology, University of the Punjab, Lahore, Pakistan	Professional Short Course	December 1997	24,	January 1998	14,
“Fluvial Sedimentology” In Collaboration with Geological Survey of Pakistan, Islamabad, Pakistan	Professional Short Course	April 27, 1998		May 10, 1998	
“The Waste Management Systems” In Collaboration with the Ministry of Labour, Manpower & Overseas Pakistanis, and UNDP under TOKTEN Programme, held in Institute of Geology, University of the Punjab, Lahore, Pakistan	Professional Short Course	December 1998	17,	December 23, 1998	
“Environmental Hydrogeology & Groundwater Contamination” In Collaboration with the Ministry of Labour, Manpower & Overseas Pakistanis, and UNDP under TOKTEN Programme, held in Institute of Geology, University of the Punjab, Lahore, Pakistan	Professional Short Course	January 1999	26,	February 1999	14,
“Economic Mineral Deposits” In Collaboration with the Dept. of Mines and Energy, N.T. Geological Survey, Darwin, Australia, held in Institute of Geology, University of the Punjab, Lahore, Pakistan	Professional Short Course	March 1999	22,	March 1999	27,
“Landslides (Identification, Analysis & Remedies)” In Collaboration with the Ministry of Labour, Manpower & Overseas Pakistanis, and UNDP under TOKTEN Programme, held in Institute of Geology, University of the Punjab, Lahore, Pakistan	Professional Short Course	December 1999	22,	January 2000	21,
“Isotope Geology” Post Graduate Center for Earth Sciences, University of the Punjab, Lahore, Pakistan	Professional Short Course	March 2001	29,	April 03, 2001	
“Groundwater Resources and Their Environmental Impacts” In collaboration with National Committee of Pakistan, International Association of Hydro-geologists (IAH), held in Institute of Geology, University of the Punjab, Lahore, Pakistan	Professional Short Course	January 2002	31,	February 2002	01,
“Geological Application of Open-Hole Logging” In Collaboration with the Oil and Gas Development Company Limited (OGDCL), held in Institute of Geology, University of the Punjab, Lahore, Pakistan	Professional Short Course	August 2002	05,	August 2002	09,
“Seventh Human Resources Development Centre (HRDC) Faculty Orientation Program” Institute of Administrative Sciences (IAS), University of the Punjab, Lahore, Pakistan	Professional Short Course	September 2005	19,	September 29, 2005	
“Tunnels- Alignment, Investigations & Construction” Institute of Geology, University of the Punjab, Lahore, Pakistan	Professional Short Course	September 2006	19,	September 21, 2006	
“Tutor Training Workshop” UNSW Learning Center, University of New South Wales, Sydney, Australia	Professional Short Course	September 2007	3,		
“Analysis of Geotechnical Problems with ABAQUS” In collaboration with SIMULIA, held in School of Mining Engineering, University of New South Wales, Australia	Professional Short Course	September 2007	27,	September 28, 2007	
“Tunnel Design and Construction Short Course” In collaboration with Australasian Tunneling Society	Professional Short Course	September 2009	28,	September 30, 2009	

(ATS), held in University of Technology Sydney (UTS), Australia					
“Applied Numerical Methods with MATLAB” Institute of Geology, University of the Punjab, Lahore, Pakistan	Professional Short Course	March 2013	11, March 2013	15, March 2013	
“Mixed Methods Research using SPSS & NVIVO software” Office of Research, Innovation and Commercialization (ORIC), University of the Punjab, Lahore, Pakistan	Professional Short Course	November 2013	23,		
“Preparation of Geological Maps in GIS Environment: GIS as a Tool for Geologists” Institute of Geology, University of the Punjab, Lahore, Pakistan	Professional Short Course	January 2016	25, January 2016	29, January 2016	

EXPERIENCE RECORD:

1. INSTITUTE OF GEOLOGY, UNIVERSITY OF PUNJAB, LAHORE, PAKISTAN

Title of position: Assistant Professor

Period of Assignment April 05, 2012 to date

Head, Applied Geosciences Division, Institute of Geology, University of the Punjab, Lahore comprising Engineering Geology and Geophysics Sections; Also

Head, Engineering Geology Section

Following are the key responsibilities;

- Undergraduate and post graduate teaching
- Supervision of undergraduate and post graduate research and dissertation writing
- Supervision and monitoring of Engineering Geology and Geophysics sections for planning, scheduling and implementation of classes, exams and researches to keep the sessions regular.

Teaching Area (Undergraduate)

- Engineering Geology
- Rock Mechanics
- Soil Mechanics
- Geohydrology

Teaching Area (Postgraduate M. Phil)

- Soil Mechanics-I (GEOL-531)
- Rock Mechanics – I (GEOL-532)
- Engineering Geology (GEOL-535)
- Soil Mechanics-II (GEOL-536)
- Rock Mechanics – II (GEOL-537)

Teaching Area (Postgraduate Ph. D)

- Geomechanics (GEOL-741)
- Slope Stability: Types, Factors And Investigations (GEOL-742)
- Slope Stability: Evaluations and Mitigations (GEOL-744)
- 3D Geological Modelling (GEOL-745)
- Underground Excavations & Support Assessment (GEOL-746)
- Numerical Methods in Geomechanics (GEOL-747)
- Slope Stability Hazard Zonation (GEOL-750)
- Geohazards; Types And Factors (GEOL-751)
- Geohazards; Zonation & Risk Assessment (GEOL-752)
- Engineering Geology In Dams& Hydropower Projects (GEOL-754)
- Construction Materials for Dams & Hydropower Projects (GEOL-757)
- Construction Materials For Roads & Highways (GEOL-758)

Thesis Supervision

- Supervised 30 M. Phil Student and one (1) Ph.D. Students
- More than 20 Ph. D and M. Phil students are enrolled currently.

Other Engagements

- Incharge, Engineering Geology, Groundwater and Geomechanics Laboratory, Institute of Geology, PU, Lahore.
- Incharge, Topographic & Geologic Mapping Section, Institute of Geology, PU, Lahore.
- Incharge, Sports, Institute of Geology, PU, Lahore.

2. INSTITUTE OF GEOLOGY, UNIVERSITY OF PUNJAB, LAHORE, PAKISTAN

Title of position: Lecturer

Period of Assignment Sep. 2005 to April 2012

(PhD Leave from April 2007 to May 2011)

Responsibilities included undergrad and postgrad teaching with supervision of research work.

Teaching Area (Undergraduate & Postgraduate up to 2007)

- Engineering Geology
- Rock Mechanics
- Soil Mechanics
- Geohydrology

Teaching Area (Postgraduate After May 2011)

- Soil Mechanics-I (GEOL-531)
- Rock Mechanics – I (GEOL-532)
- Engineering Geology (GEOL-535)
- Soil Mechanics-II (GEOL-536)
- Rock Mechanics – II (GEOL-537)

Thesis Supervision

- Supervised two M. Sc student in 2006-2007 on natural hazards i.e. erosion control in north-western regions of Pakistan.

Other Activities

- Conducted reconnaissance visit to study earthquake induced landslides in northern Pakistan after destructive earthquake of October 12, 2005.
- Organised and Coordinated seminar on Tunnels- Alignment and Construction.

3. NATIONAL ENGINEERING SERVICES PAKISTAN (PVT.) LIMITED (NESPAK)

Title of position Engineering Geologist

Location of Assignment Lahore - Pakistan

Period of Assignment Nov. 2002 to August 2005

Responsibilities:

- Planning and performance of engineering geologic mapping and development of geologic cross-sections.
- Slope stability analysis by using computer aided programmes.
- Core- Trench/ Foundation Mapping for Dam Projects.
- Planning and conductance of rock discontinuity survey i.e. scan line survey, detail line survey.
- Planning and acquisition of orientation data for discontinuities in a rock mass.
- Plotting of stereo- nets for discontinuities and analysis of data for rock mass strength.
- Studies, investigations and evaluation of landslides.
- Design of remedial works for various landslide projects.
- Development of land-use and slope maps by using satellite imageries.
- Planning and supervision of geotechnical investigations including boring, drilling, sampling and in-situ testing for dams and buildings.

- Preparation of laboratory testing programmes and analyses of lab test results.
- Data analysis, interpretation of geological and geotechnical investigation data and compilation of reports.
- Preparation of financial and technical proposals for various mega and small projects.

Projects

- Wadi Dayqah Dam Project, Quriyat. (Oman)
- Istalif Micro Hydropower Project, Istalif. (Afghanistan)
- Detailed feasibility studies of Bara Dam, Lashora Dam and Wuch Tangi Dam, Khyber Agency (Pakistan).
- Feasibility Study of Zamir Gul, Maroobi and Rajoia Dams in NWFP. (Pakistan)
- Feasibility Study, detailed design and construction supervision of 12 Small Dams in FATA. (Pakistan)
- Perspective planning of Small Dams in FATA. (Pakistan)
- Study and design of remedial measures for landslides for “Upgradation and Relocation of KKH. (Karakoram Highway) for “Bash Diامر Dam Project” (Pakistan)
- Study and Design of Remedial Measures for landslides on Kahuta-Panjar-Azad Pattan Road, Rawalpindi.(Pakistan)
- Study and design of remedial measures for Aliot landslide along Murree – Kohala road. (Pakistan)
- Study and design of remedial measures for Landslides along Lawrence College – Jhika Gali bypass road, Murree. (Pakistan)
- Master Planning for New-township, Murree & Patriata. (Pakistan)
- Construction of Cargo Runway, Bagram Air Base. (Afghanistan)
- Hasarak Bridge, Jalalabad. (Afghanistan)
- Planning and supervision of geotechnical investigation and geological mapping for National University of Science & Technology, Islamabad. (Pakistan)

4. GEOSCIENCE ASSOCIATES, LAHORE, PAKISTAN

Title of Position Trainee Geologist/ Geologist

Location of Assignment Lahore - Pakistan

Period of Assignment Nov. 2001 to Nov.2002

Responsibilities:

- Testing and interpretation of piles’ defects by using SIT (Sonic Integrity Testing) equipment & Programme.
- Conducting Hydrogeological reconnaissance survey and demarcation of saline/fresh water interface for sustainable exploitation of groundwater in different areas of Sindh, Kashmir and Punjab.
- To conduct geo-electrical resistivity survey using signal averaging resistivity measuring equipment i.e. 3Pa and Terrameter SAS 300C
- Processing and interpretation of resistivity data using numerical model RESIX & RESIXP.
- Conducting geophysical well logging using SP/SPR and natural gamma ray logging in various projects to delineate sub-surface lithology and groundwater quality.
- Preparation and compilation of reports for the acquired data.

Projects

- Shah Faisal Fly-Over, Karachi. (Pakistan)
- PRWSS (Punjab Rural Water Supply Scheme) Chakwal & Bahawalpur districts. (Pakistan)
- PRWSS (Punjab Rural Water Supply Scheme) Dist. Chakwal (Pakistan)
- Water Supplu Schemes, Dist. Mirpur (AJK). (Pakistan)
- Groundwater investigations, Dist. Sukkar. (Pakistan)
- Groundwater investigations, Gwadar Fish Harbor, Gwadar. (Pakistan)

OVERSEAS ASSIGNMENTS:**Wadi Dayqah Dam Project, Quriyat, Oman (2004-2005).**

Assignment included geological mapping, rock mass characteristics and evaluation, stability of reservoir rim, water tightness issues because of cast topography, kinematic analyses of abutment slopes and preparation of report.

Geotechnical Investigations for Hasarak Bridge, Jalalabad, Afghanistan (July2005).

Supervised Geotechnical Investigation including drilling of boreholes, core logging, insitu testing and report compilation.

Istalif Micro Hydropower Project, Kabul, Afghanistan (June-July 2003).

Supervised Geotechnical Investigations including drilling of boreholes, core logging and insitu testing and compiled foundation design recommendation report.

Geotechnical Investigations at Bagram Air Base, Afghanistan (June-July 2003).

Conducted plate load tests as part of the field investigations for new cargo runway, analyses and recommendations for bearing pressures.

NUMERICAL MODELLING STRENGTHS:**Numerical Models**

PFC2&3D Discrete Element Methods (DEM) code having numerous applications in geomechanics.

Map3D Boundary Element Methods (BEM) code for stress analysis of underground excavations.

Phase-II/ RS2/3 Finite Element Methods (FEM) code having numerous applications in Geotech.

RocPack-III For rock slope stability analyses (Kinematic & Limit Equilibrium)

Geo-Orient For stereographic Projection and kinematic analysis of slope discontinuity orientation data

Rockworks For the development of 3D geological model based on surface and subsurface data.

Roclab/ data For rock mass strength criteria

DIPS For kinematic analyses of rock slopes

SWEDGE For Limit Equilibrium analyses of wedge failures in rock slopes

UNWEDGE For Limit Equilibrium analyses of wedge failures in underground rock excavations

SLIDE/3D For Limit Equilibrium analyses of overburden/ rock slopes.

SLOPE/W For Limit Equilibrium analyses of overburden/ rock slopes.

SIT Sonic Integrity Testing Program for pile non-destructive testing.

ResixP For the resistivity analysis/ interpretation of subsurface material.

RESEARCH**Undertaken Researches**

- Akram, M.S. (2001). Geotechnical & Geophysical Studies of Landslides along Murree - Ayubia Road & Partsan Village, District Chitral. (M.Sc Thesis), Institute of Geology, University of the Punjab, Lahore, Pakistan. (Research was supervised by Dr. Muhammad Saeed Farooq)
- Akram, M.S. (2010). Physical and numerical investigation of conglomeratic rocks. (Ph.D. Thesis). School of Mining Engineering, The University of New South Wales, Sydney, Australia. (The

Research was supervised by Dr. Glenn Bruce Sharrock (Supervisor) and Dr Rudra Mitra (Co-Supervisor)

Research Interests

- Rock Mass Strength Evaluation
- Slope Stability Studies and Analyses
- Experimental Rock Mechanics
- Rock Excavations & Numerical Modeling

COMPLETED RESEARCH PROJECTS

Being principal Investigator, following University of the Punjab Research Projects were undertaken and completion reports were submitted.

Year	Research Project Title
2011-2012	Correlation of Uniaxial Compressive Strength (UCS), Point Load Strength Index (Is50) and Schmidt hardness of Various Rock Units of Salt Range, Pakistan. (Research Report Submitted to Director, Research, PU).
2012-2013	Correlation of mineral and mechanical properties of Salt Range rocks (Research Report Submitted to Director, Research, PU).
2013-2014	Geotechnical evaluation of landslides and inventory of remedial works along Islamabad-Murree Expressway, Pakistan. (Research Report Submitted to Director, Research, PU).
2014-2015	Stability assessment of Dewal landslide along Murree – Muzaffarabad road, Pakistan (Research Report Submitted to Director, Research, PU).
2015-2016	Back analysis of earthquake induced 80 m high slope failures along Shinkiari-Jabori Road, Abbottabad, Pakistan. (Research Report Submitted to Director, Research, PU).
2017-2018	Rock Characterization and Support Assessment by Empirical Methods for a 20km long Power Tunnel of a Hydropower Project along China-Pakistan Economic Corridor (CPEC), District Kohistan, KPK, Pakistan. (Research Report in progress of submission).

CONDCUTED SEMINARS/ WORKSHOPS / CONFERENCES

- Conducted 5-days course on Preparation of Geological Maps in GIS, Institute of Geology, University of the Punjab, January 25-29, 2016.
- Organized 01-Day Seminar on Hazards of Geography: Earthquakes, Floods and Landslides, on May 11, 2012 at the Institute of Geology, P.U., Lahore
- Conducted 3-days workshop on Tunnels: Alignment, Investigation and Construction, September 19-21, 2006, at the Institute of Geology, University of the Punjab, Lahore, Pakistan.

12. PUBLICATION.

Journal Publications

1. Dasti, N., Akram, M. S., Ahmad, I. & Usman, M. (2018). Rock fractures characterization in Khairi Murat Range, Sub Himalayan Fold and Thrust Belt, North Pakistan. *The Nucleus*, 55 (3), 115-127, November, 2018.
2. Akram, M. S., Ahmed, L., Ali, M., Ullah M. F. & Rehman, F. (2018). Numerical verification of Empirically designed support for a headrace tunnel: A case study from District Battagram, Khyber Pakhtunkhwa, Pakistan. *Civil Engineering Journal*. 4 (11), 2575-2587, November, 2018 (<http://dx.doi.org/10.28991/cej-03091182>)
3. Mirza, K., Akram, M. S., Khan, D., Lodhi, K. K. R. & Zeeshan, M. (2018). Integrated microfacies analysis of lower Paleogene carbonate rocks of Kasanwala area, Western Salt Range, North Western Himalayas, Pakistan. *Journal of Biodiversity and Environmental Sciences*, 13(4), 1-15, October 2018.
4. Akram, M. S., Mirza, K., Iqbal, A. & Zeeshan, M. (2018). Development and Validation of Portable Electronic Sensor to Detect the Soil Moisture for Geotechnical Investigations. *Journal of Biodiversity and Environmental Sciences* 13(4), 63-72, October 2018.
5. Mirza, K., Akram, M. S., Khan, D., Lodhi, K. K. R. & Zeeshan, M. (2018). Microfacies Analysis and reservoir characters of Eocene Carbonates of Khair-i-Murat Range, Northern Potwar Deformed Zone (NPDZ), Sub-Himalayas, Pakistan. *Journal of Biodiversity and Environmental Sciences*, 13(4), 88-100, October 2018.
6. Akram, M. S., Ahmed, L., Farooq, S., Ahad, M. A., Zaidi, S. M. H. & Khan, M. (2018). Geotechnical Evaluation of Rock Cut Slopes using Basic Rock Mass Rating (RMR basic), Slope Mass Rating (SMR) and Kinematic Analysis along Islamabad Muzaffarabad Dual Carriageway (IMDC), Pakistan. *Journal of Biodiversity and Environmental Sciences* 13(1), 297-306, July 2018
7. Ullah, M. F. & Akram, M. S. (2018). Coal mining trends and future prospects: A case study of Eastern Salt Range, Punjab, Pakistan. *Journal of Himalayan Earth Sciences*, 51(2A), 87-93.
8. Ullah, M. F. & Akram, M. S. (2018). Coal Mining Trends, Approaches and Safety Hazards: a brief review. *Arabian Journal of Geosciences* 11(21), DOI: 10.1007/s12517-018-3977-5
9. Saleem, U., Akram, M.S., Ullah, M.F. and Rehman, F. (2018). Accurate Imputation for Relative Humidity over Pakistan Gathered from AQUA Satellite. *Open Journal of Geology*, 8, 987-1001. <https://doi.org/10.4236/ojg.2018.810059>
10. Saleem, U., Akram, M.S., Ullah, M.F., Rehman, F. and Khan, M.R. (2018). AQUA Satellite Data and Imputation of Geopotential Height: A Case Study for Pakistan. *Open Journal of Geology*, 8, 1002-1018. <https://doi.org/10.4236/ojg.2018.810060>
11. Akram, M.S., Mirza, K., Zeeshan, M., Ali, M. and Ahmed, L. (2018). Geotechnical Investigation and Prediction of Rock Burst, Squeezing with Remediation Design by Numerical Analyses along Headrace Tunnel in Swat Valley, Khyber Pakhtunkhwa, Pakistan. *Open Journal of Geology*, 8, 965-986. <https://doi.org/10.4236/ojg.2018.810058>
12. Akram, M.S., Mirza, K., Zeeshan, M. and Jabbar, M.A. (2018). Assessment of Rock Mass Quality and Deformation Modulus by Empirical Methods along Kandiah River, KPK, Pakistan. *Open Journal of Geology*, 8, 947-964. <https://doi.org/10.4236/ojg.2018.810057>
13. Khalid, P., Ehsan, M. I., Akram, M. S., Din, Z. U. & Ghazi, S. (2018). Integrated Reservoir Characterization and Petrophysical Analysis of Cretaceous Sands in Lower Indus Basin Pakistan. *Journal of the Geological Society of India*. (Ms. No. JGSI-D-17-00397R1)
14. Ahmad, B., Akram, M. S., Ahmed, N. & Jamil, S. (2018). Geological and geotechnical investigations at dam site for site characterization of 4320MW Dasu hydropower project, Northern Pakistan. *Himalayan Geology*. 39(2), 171-187.
15. Akram, M. S., Zeeshan, M. & Ali, A. (2018). Stability Analysis of Landslide near Dewal Village along Murree-Muzaffarabad Road, Pakistan. *Journal of the Geological Society of India*. Vol.91, June 2018, pp. 729-735. <https://doi.org/10.1007/s12594-018-0931-9>
16. Ahmed, N., Kausar, T., Khalid, P. & Akram, M. S. (2018). Assessment of Reservoir Rock Properties from Rock Physics Modeling and Petrophysical Analysis of Borehole Logging Data to Lessen Uncertainty in

- Formation Characterization in Ratana Gas Field, Northern Potwar, Pakistan. *Journal of the Geological Society of India*. Vol.91, June 2018, pp.736-742. <https://doi.org/10.1007/s12594-018-0932-8>
17. Akram, M. S., Sharrock, G. B. & Mitra, R. (2018). Investigating mechanics of conglomeratic rocks: influence of clast size distribution, scale and properties of clast and interparticle cement. *Bulletin of Engineering Geology and the Environment*. Published online on April 12, 2018. <https://doi.org/10.1007/s10064-018-1274-x>
 18. Akram, M. S. & Zeeshan, M. (2018). Rock Mass Characterization and Support Assessment along Power Tunnel of a Hydropower in Kohistan Area, KPK, Pakistan. *Journal of the Geological Society of India*, Volume 91, Issue 2, pp 221–226. <https://doi.org/10.1007/s12594-018-0839-4>.
 19. Noor, A., Akram, M. S., Ahmed, L. & Sarwar, W. (2017). Back analysis of an earthquake triggered landslide in Mansehra district, Pakistan. *Journal of Himalayan Earth Sciences*, 50, No. 1A, pp. 86-99.
 20. Akram, M. S., Farooq, S., Naeem, M. & Ghazi, S. (2016). Prediction of mechanical behavior from mineralogical composition of Sakesar limestone, Central Salt Range, Pakistan. *Bulletin of Engineering Geology and the Environment*, Published online. DOI 10.1007/s10064 -016-1002-3.
 21. Akram, M. S. & Zeshan, M. (2016). Geotechnical assessment for weir foundation incorporating rock mass rating (RMR) and geological strength index (GSI) classification systems of a small hydropower project, District Shangla-Pakistan. *Science International Journal*. 28, (6), pp.5111-5114.
 22. Ali, I., Akram, M. S. & Mirza, K. (2014). Lineament Study of Kandiah Valley, Kohistan District, NW Pakistan. *The Nucleus*, 52, No. 4.
 23. Mirza, K., Sameeni, S. J., Akram, M. S. & Yasin, A. (2014). Nummulites from the Kohat Formation, Northern Kohat Basin, Himalayan Fold and Thrust Belt, Northern Pakistan. *Science International Journal*. 26(5), 3039-3043.
 24. Akram, M. S., Azhar, M. U, & Farooq, S. (2014). Prediction of Uniaxial Compressive Strength (UCS) of Sakesar Limestone in Salt Range - Pakistan by Indirect Methods. *International Journal of Advanced Information Science and Technology IJAIST-22*.
 25. Akram, M. S. and Sharrock, G. (2010). Physical and numerical investigation of a cemented granular assembly of steel spheres. *International Journal for Numerical & Analytical Methods in Geomechanics*, 34 (18): 1896-1934. DOI: 10.1002/nag.885.
 26. Akram, M. S., Zeeshan, M. & Ali, I. (2018). Correlation of Tectonics with Geologic Lineaments Interpreted from Remote Sensing Data for Kandiah Valley, Khyber-Pakhtunkhwa, Pakistan. *Journal of the Geological Society of India*. (ID= JGSI-D-18-00053R1, Accepted in May 2018)
 27. Akram, M. S., Zeeshan, M., Mirza, K., Ahmed L. & Noor, A. Ali, M. (2018). Slope stability analyses using classification systems and numerical methods: Case study from Lower Dir, Khyber Pakhtunkhwa, Pakistan. *Himalayan Geology*. (MS# 562-2018, Accepted in September 2018)

Conference Publications

1. Ali, S., Akram, M. S. & Haider, R. (2018). A Comparative Evaluation of Indirect Methods to Estimate the Compressive Strength of Limestone (Chorgali Formation). In: Hoyos L., McCartney J. (eds) *Advances in Characterization and Analysis of Expansive Soils and Rocks*. GeoMEast 2017. Sustainable Civil Infrastructures. Springer, Cham (https://doi.org/10.1007/978-3-319-61931-6_15)
2. Rehman, A., Akram, M. S. & Zafar, T. (2017). Physical Characterization of the Wargal Limestone, Barai Nala Section, Amb Sharif, Central Salt Range, Sub-Himalayas, Pakistan. *International Conference on Mining and Fuel Industries (CMFI-2017)* October, 19-21, 2017, Sheikh Zayed Islamic Research Centre, Karachi, Pakistan
3. Akram, M. S. & Iqbal, A. (2017). Development of Portable Instant Soil Moisture Content Sensor. *International Conference for New Challenges in Geo-technical Engineering (ICNCGE), FAST-NUCES Lahore Pakistan*. January 23-24, 2017
4. Elahi, I. & Akram, M. S. (2017). Estimating Soil Depth to Bedrock for Seismic Site Characterization. *International Conference for New Challenges in Geo-technical Engineering (ICNCGE), FAST-NUCES Lahore Pakistan*. January 23-24, 2017

5. Akram, M. S., Azhar, M. U. & Farooq, S. (2014). Prediction of Uniaxial Compressive Strength (UCS) of Sakesar Limestone in Salt Range - Pakistan by Indirect Methods. International Conference on Earth Science Pakistan
6. Akram, M. S. & Farooq, S. (2014). Evaluation of Rock Cut Slope for Sheraton Hotel in Bahria Golf City, Islamabad. International Conference on Earth Science Pakistan 2014.
7. Farooq, M. S., Akram, M. S., Farooq, S. & Kashif, H. M. (2013). Geotechnical studies and stability analysis of Miachar Landslide in Hunza valley, Baltistan, Pakistan. In Proc. 13th National Conference on Geotechnical Engineering, March 14-15, 2013, Lahore, Pakistan
8. Elahi, I. & Akram, M. S. (2013). SRTM based prediction of the overburden thickness on the rock Engineering, March 14-15, 2013, Lahore, Pakistan
9. Akram, M. S., Sharrock, G. & Mitra, R. (2011). Physical and numerical investigation of conglomerates. 2nd International FLAC/DEM Symposium, February 14-16, 2011, Melbourne, Australia.
10. Akram, M. S., Sharrock, G. & Mitra, R. (2011). The role of interstitial cement in cemented spheres. 2nd International FLAC/DEM Symposium, February 14-16, 2011, Melbourne, Australia.
11. Akram, M. S. & Sharrock, G. (2009). Physical and numerical investigation of a cemented granular assembly under uniaxial and triaxial compression. The 43rd US Rock Mechanics Symposium and 4th U.S. - Canada Rock Mechanics Symposium June 28 – July 1, 2009, Asheville, ARMA09-024 (CD-ROM), Paper No. 24.
12. Sharrock, G. B., Akram, M. S. & Mitra, R. (2009). Application of synthetic rock mass modeling to estimate the strength of jointed sandstone. The 43rd US Rock Mechanics Symposium and 4th U.S. - Canada Rock Mechanics Symposium June 28 – July 1, 2009, Asheville, ARMA09-059 (CD-ROM), Paper No. 59.

LANGUAGES AND DEGREE OF PROFICIENCY

English - Fluent in speaking, reading and writing (Medium of Instructions in higher education).

Urdu - Fluent in speaking, reading and writing (National Language- Pakistan).

Punjabi - Fluent in speaking, reading and writing (Mother Language- Punjab, Pakistan).

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(DR. MIAN SOHAIL AKRAM)

January 04, 2019