



Abid Khan

Geologist

PROFILE

Roads and tunnels play a significant role in modern transportation infrastructure, connecting people and facilitating the movement of goods. Behind the scenes, a crucial group of professionals, geologists, work diligently to ensure the success and safety of these construction projects. This short piece aims to shed light on the essential work of geologists in the construction of roads and tunnels.

Geological Survey and Investigation:

Geologists are responsible for conducting comprehensive geological surveys and investigations at project sites. By studying the local geology, they identify potential challenges and risks that may affect the construction process. Through the analysis of soil composition, rock formations, groundwater levels, and other geological factors, they gather vital information for project planning and design.

Geotechnical Engineering:

Geologists collaborate closely with geotechnical engineers to evaluate the stability and suitability of the ground for road and tunnel construction. They analyze soil and rock samples to determine their strength, permeability, and other mechanical properties. This knowledge helps engineers design appropriate foundations, slopes, and retaining structures to ensure the stability and longevity of the infrastructure.

Hazard Assessment and Mitigation:

One of the critical roles of geologists is to assess potential natural hazards in the project area. They identify areas prone to landslides, rockfalls, or geological instabilities that could endanger the construction process or future operation of the road or tunnel. Geologists work with engineers and planners to develop strategies for mitigating these hazards, such as installing slope stabilization measures or implementing drainage systems.

WORK EXPERIENCE

NATURAL GRANITE & MARBLE COMPANY **MINE MANAGER / MAP ENGINEER**

Feb, 3, 2018 – Dec, 26, 2022

I worked as Mine Manager here my duty to oversee all of the plans and strategies on the job site, as well as the personnel and heavy equipment needed for the excavation. In this position, I also serve as a map engineer, drawing sketches for office planning and creating maps of site excavation. I use quadrants to create shapefiles in ArcGIS and convert data to KML or KMZ files. I've been an ArcGIS engineer for my clients for more than 7 years now.

GEO DEEP ROCK **GEO TECH ENGINEER / SITE GEOLOGIST**

Oct, 2, 2018 – Dec, 17, 2018

Again, I was designated as Geotech Engineer by Engineer Zeeshan the Managing Director of GDR (geo deep rock) My responsibilities were to perform Piling, borehole, taking sample and analysis the strata. Also, I was responsible to perform Sonic integrity test as well.

SAMPAK INTERNATIONAL (CONSULTANT) **LAB ENGINEER**

Jan, 3, 2018 – Sep, 30, 2018

This was the project of Housing Society By Pakistan Housing Authority. Here I worked as Lab Technician control the quality of concrete and aggregate as well.

GEO DEEP ROCK **GEO TECH ENGINEER / SITE GEOLOGIST**

Aug, 21, 2017 – Jan, 1, 2018

This is Islamabad base corporate firm where I worked as Site Geologist / Geo Tech Engineer. My responsibilities were to perform borehole, taking sample and analysis the strata. Also, I was responsible to perform Sonic integrity test as well.

CSEEC (China State Construction Engineering Corporation) **MATERIAL ENGINEER / QUALITY DIRECTOR**

Jan, 10, 2016 – Aug, 20, 2017

After struggling with the help of Sir Farid ur rehman I got an opportunity to establish the CPEC project independently and worked here for more than one and half year. My responsibilities were to control the quality of Soil, Concrete and aggregate. I was also responsible to find the borrow areas for the material.

Groundwater Management:

Understanding the behavior of groundwater is crucial in road and tunnel construction. Geologists study the hydrogeological conditions of the project area to assess groundwater flow patterns, water table levels, and potential impacts on construction activities. This information helps in designing effective drainage systems, dewatering techniques, and waterproofing measures to prevent water-related issues during and after construction.

Environmental Considerations:

Geologists also play a vital role in addressing environmental concerns during road and tunnel construction. They assess the potential impact of the project on the surrounding ecosystems, including flora, fauna, and water bodies. Geologists work with environmental specialists to develop strategies for minimizing disturbances and implementing appropriate mitigation measures, ensuring the project complies with environmental regulations.

Conclusion:

Geologists are indispensable contributors to the construction of roads and tunnels. Their expertise in geological surveys, geotechnical engineering, hazard assessment, groundwater management, and environmental considerations helps ensure the safety, stability, and sustainability of these infrastructure projects. Through their diligent work, geologists help pave the way for efficient and reliable transportation networks that benefit societies around the world.

CONTACT

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HOBBIES

Walking
Designing

LIMAK JV ZKB

ASSISTANT MATERIAL ENGINEER

Nov, 30,2015 – Jan,2,2016

Here I worked under the supervision of Chief Material Engineer Farid-ur-Rehman Gulroo. I got all my key professional skills working under same team.

CGGC

ASSISTANT MATERIAL ENGINEER

Jan, 29,2015 – Nov,30,2015

Worked as Assistant Material Engineer with CGGC joint venture with AM associates for the project of Hazara Motorway (Expressway E35). here my responsibilities were to analysis the soil, concrete and aggregate, I was responsible to visit site and check the quality of work, soil testing and concrete as well

NEELUM JEHLUM HYDROPOWER PROJECT

TRAINEE GEOLOGIST

Dec, 26,2014 – Jan,25,2015

My duties as the trainee Geologist here included exploring the formation deposit following a thorough analysis of the fault, fold and geographical strata, as well as creating creating the Map of daily TBM excavation graph and data. Additionally, daily visit to site and take sample for analysis

HELP IN NEED VOCATIONAL TRAINING INSTITUTE MUZAFFARABAD

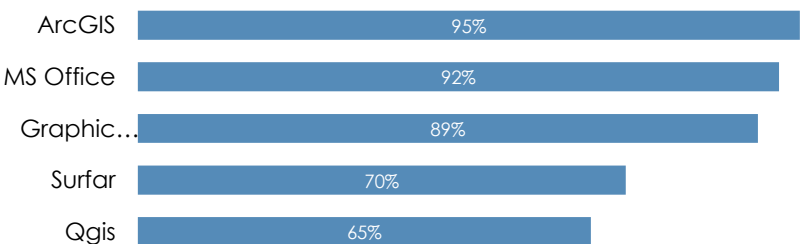
GIS INSTRUCTOR (Geographic Information System)

April, 1,2013 – September, 30, 2013

I worked as a GIS instructor at the Help in Need Vocational Training Centre in Muzaffarabad. During this time, I performed a variety of responsibilities, including

- To teach relevant software ArcGIS and surfer
- To make students identify the geological feature and structures of sub-surface like fault, fold, joint, rock fall, and the lithology of the area
- Draw the features and structures of the ground in the form of map and much more....

SKILLS



CAPABILITIES

- ✓ Dynamic person, proactive, with positive attitude and sense of humor, calm down under stress working, confident, honest, committed, empathic, self-critical, responsible and also willing to develop my skills and learn new.
- ✓ Good communications skills.
- ✓ Available to work in an international team.
- ✓ Problems solving and analysis skills.
- ✓ Experience in project management of complex process engineering projects.
- ✓ Team member for achievement of team objective set by company.
- ✓ Leadership and organizing abilities in team.
- ✓ Planning and organizational skills.
- ✓ Availability to travel and move to a foreign country, according to the employment advertisement.

EDUCATION

State University of Azad Jammu & Kashmir (Muzaffarabad)

BS Applied Geology

January 2014

Thesis: **BEARING CAPACITY EVALUATION OF SOIL AND ITS IMPLICATION FOR FOUNDATION COMPATIBILITY IN MUZAFFARABAD CITY, AZAD KASHMIR GROUP**

During study Attend field of one week in SALT RANGE & JHELM AREA OF PAKISTAN to study & identify the Letho logical units.

Attend field of two week in NORTHERN AREAS OF PAKISTAN to identify the various thrust features & Letho logical units.

MAJOR SUBJECTS:

- ✓ Structure Geology
- ✓ Advance Mineralogy
- ✓ Micropaleontology
- ✓ Geophysics
- ✓ Seismology
- ✓ Well Logging
- ✓ Sedimentation & Sedimentary Basins of Pakistan
- ✓ Plate Tectonics
- ✓ Geotechnical Engineering
- ✓ Petroleum Geology
- ✓ Petrology
- ✓ Gemology
- ✓ Geo Chemistry
- ✓ Applied Computer & GIS
- ✓ Remote Sensing
- ✓ Economic Geology

GEOLOGY:

is an earth science comprising the study of solid Earth, the rocks of which it is composed, and the processes by which they change. Geology can also refer generally to the study of the solid features of any terrestrial planet (such as the geology of the Moon or Mars).

Geology gives insight into the history of the Earth by providing the primary evidence for plate tectonics, the evolutionary history of life, and past climates. Geology is important for mineral and hydrocarbon exploration and exploitation, evaluating water resources, understanding of natural hazards, the remediation of environmental problems, and for providing insights into past climate change. Geology also plays a role in geotechnical engineering and is a major academic discipline.

State College Jamia Millia Govt Degree Collage Malir Karachi

Pre-Engineering

June 2009

State Help in Need Vocational Training Institute Muzaffarabad

Geographic information system (GIS)

Got diploma in GIS in 2013

Following properties studied

- Digitizing
- Symbology
- Joining database & Hyperlink
- Labeling the data
- Geo Referencing
- Clipping process
- Geology on map
- Contouring
- Making layout
- Geo special analysis
- 3D surface analysis
- Animation