



POSITION: ASSISTANT PROFESSOR OF GEOLOGY
ORGANISATION: GOVT. DEGREE COLLEGE, CHAMBA H.P.
DATE OF BIRTH: 23.11.1988
CITIZENSHIP: INDIAN
CONTACT DETAILS: +91 8054088191, +91 9459527454
EMAIL: thakur.asoka@gmail.com

Professional History:

More than 10 years of experience in the various domains of Engineering Geology which includes, landslides, Hydropower projects Railways and road Tunnels.

Experience demonstrates comprehensive capacity in Rock Engineering throughout the coordination with design consultant, construction and operation phases: this includes site investigations, deviation of the parameters, selection of construction and support methods and measures, monitoring and decision making on necessary adjustments during construction and following up of rock mass behaviour.

Offered long lasting and continuous on-site supervision experience during project construction analysis of site geological /geotechnical activities and needed guidance given for its proper execution/documentation for various uses during and/or after completion of job; Assessment of geological risks and variation in geology during execution.

Relevant work Experience:

Designation: Assistant professor of Geology
Organization: Government Degree College Chamba, H.P
Year: 2023 – Present

Years of Experience

- >10 years

Qualifications and Memberships

- B.Sc. Hons in Geology from Panjab university Chandigarh.
- M.Sc.in Geology from Panjab University Chandigarh.
- CSIR-UGC NET -2013.
- Life member of Indian Society for Rock Mechanics and Tunnelling Technology, New Delhi. (LM-1708)
- Member of International Association for Engineering Geology and Environment -2023

Area of Interest

- Engineering Geology,
- Applied Geology
- Geomorphology
- Natural Hazards
- Rock Mechanics and Geotechnical Applications in Tunnelling and Underground Space Technology and rock slopes.

MAIN ACTIVITIES:

- Teaching, Research, Fieldwork, and Services, that would help in the progress of students in particular and society in general.

Designation: Manager Engineering Services

Organization: Adani Green Energy Limited

Year: 2023

MAIN ACTIVITIES:

- Geological Mapping, Forecasting, Geotechnical parameters like Rock mass Quality, Joint Patterns, Orientation, Roughness, Degree of alteration, Joint water pressure, Water pressure test and grouting activities.
- Geological and geotechnical investigation of the project
- Soil and rock investigation program
- Drill/Bore Hole investigation of the project and making of reports.
- Construction stage geotechnical works for Hydro Electric Project.
- Geotechnical investigation of site for different segments of Hydro Electric Project.
- Support Recommendations for Tunnels based on Rock Mass Classification.
- Material & Resource Planning.
- Rock classification and support design work according to NICK BARTON of NGI. Probe Drilling and Core Drilling, core logging, Field and Laboratory analysis of Rocks and Rock Bolt recommendations for extra support or remedies to improve the unsupported zone where shear zones or weak zones were encountered.

Designation: Resident Geologist

Organization: Lion Engineering consultants

Year: 2022-2023

Project: Bhanupali -Bilaspur Railway line Project

Client: Rail Vikas Nigam Limited

Description of project: Detailed design and project management consultancy for construction of tunnels from chainage km 31+800 to km 48+962 and works related to bridges and formation on approaches of such tunnels in connection with new single line broad gauge rail link between bhanupali-bilaspur- Beri in the state of Himachal Pradesh, India.

MAIN ACTIVITIES:

- Review the geological/geotechnical data available and proposal for further investigations.
- Geological/geotechnical site report for final design and design for the main Tunnel and escape tunnel and surface geological mapping along the tunnel alignment. Slope stability and relocation of the portal review and adits according to geological/geotechnical condition.
- Mark's major thrust plane, major discontinuity, and impact tunnel alignment and geological mapping for the complete alignment and adits.
- Identify the wedge failure analysis by the intersection of discontinuities with reference to tunnel alignment and report and mapping.
- Supervision work of construction of the tunnel and suggest a support system for safe working.
- Observation and investigation of the geological and geotechnical engineering report.
- Engineering geological and geotechnical model development.
- Standardization and scope for geological and geotechnical works.

- Communication-related to the geological and geotechnical conditions for an interpretation related to engineering purpose.
- Performing rock classification on the basis of RMR, GSI, and Q-Value for safe and good tunneling and to recommend appropriate support system based on NATM Methodology, Work include execution of underground works like drilling, blasting, rock bolting, fore poling, pipe roofing, consolidation grouting

Designation: Geologist

Organization: Megha Engineering and Infrastructure Limited

Year: 2020-2022

Project: Zojila Tunnel Project

Client: National Highway and Infrastructure Development Corporation Limited.

Description of Project: The project aims at the construction of 14.2 km long two-lane bi-directional single tube tunnel between Baltal at about 3,000 m altitude, about 15 km east of Sonmarg towards the Srinagar end and Minamarg towards the Dras / Kargil end.

MAIN ACTIVITIES:

- Geological surface mapping, geomechanical parameters, Geological-L section, and Geological Plans.
- To calculate the Rock Mass Rating (RMR), Q Value and interpret rock class.
- Monitoring of 3D targets data provided by the surveyor in the already excavation and tunnel. If found any extreme displacements, then accordingly propose further strengthening of the support system.
- Supervision of pre-strengthening activities of the rock mass (Grouting, fore poling, etc.)
- Geological and non-geological over break Geological reports preparation and analysis.
- Supervision of installation of Support System as per NATM method in the excavated area (erecting Lattice Girder, lattice girders at spacing specified in construction drawing).
- Looked after the anchor works for slope stabilization (anchor fabrication, grouting, stressing, and testing).
- Installation & monitoring of Geo-Technical instruments i.e., MPBX (multipoint boreholes extensometer), Piezometer, stress strain meter, etc

Designation: Geologist

Organization: MF BUMI GEOTECH. PVT. LTD

Year: 2020

Project: JSW- KUTHER) 240 MW Hydropower project

Client: JSW ENERGY KUTHER HYDRO POWER PROJECT, CHAMBA, HP.

Description of Project: -7.5 kilometers Head Race Tunnel, Surge shaft, pressure shaft, Underground power house, Underground transformer Hall, collection gallery and Tail race tunnel. HRT is further divided by 3 Adits to ease the excavation .

MAIN ACTIVITIES

- Forecasting, Geotechnical parameters like Rock mass Quality, Joint Patterns, Orientation, Roughness, Degree of alteration, Joint water pressure and Stress Reduction Factor during tunnel drive, Slope stability analysis during the excavation of Power House excavation, Water pressure test, and grouting activities.
- Geological and geotechnical investigation of the project
- Soil and rock investigation program
- Drill/Bore Hole investigation of the project and the making of reports.
- Construction stage geotechnical works for Hydro Electric Project

Designation: Geologist

Organization: Lombardi Engineering Ind. Pvt Ltd.

Year: 2019-20

Project Rishikesh to Karanpryag Railway line Project

Client: Rail Vikas Nigam Limited.

Description of Project: Consultancy Services for Detailed Design Consultancy, 3D Monitoring & Supervision of Tunnel Package -1 (Between Km 6+800 to 17+650 Km) and Package-8 in connection with Construction of Rishikesh to Shivpuri Section of Rishikesh to Karanpryag New BG Railway Line Project in Uttarakhand, India

MAIN ACTIVITIES

- Review the geological/geotechnical data available and proposal for further investigations.
- Geological/geotechnical site report for final design and design for main Tunnel and escape tunnel and surface geological mapping along tunnel alignment. Slope stability and relocation of the portal review and adits according to geological/geotechnical condition.
- Mark major thrust plane, major discontinuity and impact tunnel alignment and geological mapping for the complete alignment and adits.
- Identify the wedge failure analysis by intersection of discontinuities with reference to tunnel alignment and report and mapping.
- Supervision work of construction of tunnel and suggest support system for safe working.
- Observation and investigation of the geological and geotechnical engineering report.
- Engineering geological and geotechnical model development.
- Standardization and scope for geological and geotechnical works.
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Designation: Geologist

Organization: IL&FS

Year: 2018-2019

Project Z-Morh Tunnel Project at Sonamarg, Kashmir.

Client: NHIDCL

Description of Project: Z-Morh Tunnel project which is on Srinagar-Kargil Road. (6.5 km) and its further Extension, Zoji La Tunnel is a 14.2 km long Bi-Directional Road tunnel under Zoji La pass on the Himalayas between Sonmarg and Dras town of Kargil district of Jammu & Kashmir, India.

MAIN ACTIVITIES

- Geological surface mapping, geomechanical parameters, Geological-L section and Geological Plans.
- To calculate the Rock Mass Rating (RMR), Q Value and interpret rock class.
- Monitoring of 3D targets data provided by the surveyor in the already excavation and tunnel. If found any extreme displacements, then accordingly propose further strengthening of support system.
- Supervision of pre-strengthening activities of the rock mass (Grouting, fore poling etc.)
- Geological and non-geological over break Geological reports preparation and analysis.
- Supervision of installation of Support System as per NATM method in the excavated are
- (Erecting Lattice Girder, lattice girders at spacing specified in construction drawing).
- Looked after the anchor works for slope stabilization (anchor fabrication, grouting, stressing and testing).
- Installation & monitoring of Geo-Technical instruments i.e., MPBX (multipoint bore holes extensometer), Piezometer, stress strain meter, etc.

Designation: Geologist

Organization: DRDO-DTRL Ministry of Defense, Govt. of India.

Year: 2015-2018

Project: Geological investigation & Geohazard -mitigations (various project sites in the state of Jammu Kashmir, Himachal Pradesh and Uttarakhand) India

Client: Border Road Organization

Description of Project: landslide hazards assessment, control measures and development of early warning system for landslides.

MAIN ACTIVITIES

- Geological mapping and geotechnical investigation, Installation of the sensors like piezometer, inclinometer extensometers and rain gauge etc. for the subsurface movement detection of the sliding Rock Mass.
- Collection of geomechanical data and the Evaluation of Rock Mass exposed on the surface & Underground excavation (specifically in Rohtang Tunnel located in Manali Himachal Pradesh) & other Cavern projects using (RMR), Q Value -Parameters, and interpret rock class and recommendation of the support system accordingly.
- RMR, GSI and Q value-based rock mass classification.
- Surface based study of the landslide movement using total station Development of the early warning system for the landslide.
- Control measures and control structure for landslides and Avalanche.

- Geological and geotechnical investigation along NH-1D.
- Soil and rock investigation program.
- Preparation of Monthly Geological/ Technical report & their continuous up gradation.

Designation: Geologist

Organization: P&R GROUP

Year: 2013-2014

Client: JKPDC

Project: 2x9 MW Dah and Hanu Hydropower projects in Union Territory of Ladakh.

MAIN ACTIVITIES

- Forecasting, Geotechnical parameters like Rock mass Quality, Joint Patterns, Orientation, Roughness, Degree of alteration, Joint water pressure and Stress Reduction Factor during tunnel drive, Slope stability analysis during excavation of Power House excavation, Water pressure test and grouting activities.
- Geological and geotechnical investigation of the project
- Soil and rock investigation program Drill/Bore Hole investigation of the project and making of reports.
- Construction stage geotechnical works for Hydro Electric Project. Geotechnical investigation of site for different segments of Hydro Electric Project.
- Support Recommendations for Tunnels based on Rock Mass Classification.

AWARDS & SCHOLARSHIPS

- ❖ *Awarded for the Senior Research fellowship in the year 2017 by DRDO Ministry of defense Govt. of the India.*
- ❖ *Awarded for the Junior Research Fellowship in year 2015 by DRDO Ministry of defense Govt. of India.*
- ❖ *Awarded for the CSIR-NET certificate for the lectureship in the year of 2013, University Grant Commission (Selection & Award Bureau). New Delhi.*

ACHIEVEMENTS

- ❖ *Selected and faced the interview for Scientist -B at MOES govt. of India in 2018.*
- ❖ *Selected in HPPSC Assistant professor and faced interview panel in 2018.*
- ❖ *Selected and faced the interview for the Scientist -B at Survey of India in 2018.*
- ❖ *Selected in UPSC assistant Geophysicist examination and faced UPSC interview panel in 2015.*
- ❖ *Selected in UPSC combined Geologist and Geoscientist examination faced interview panel 2014*

SPECIAL FOUNDATIONS:

- ❖ *Successfully submitted A Report on Geological Review and Construction Approach to Tunnels in Package -5 of Bhanupali -Bilaspur -Beri Railway line project to the Chief Project Manager, Rail Vikas Nigam Limited, Chandigarh.*
- ❖ *Successfully submitted geological and geotechnical investigation report of the Geological survey along NH-1D to the Director DTRL -DRDO Govt. of India in 2017.*
- ❖ *One-week training program on landslide hazards at NIDM Ministry of Home affairs Govt. of India 2016.*
- ❖ *One-week National Training program on “Control Measure for Landslide” at CSIR-CBRI Roorkee, 2016.*
- ❖ *One-week Continued education program (CEP-COURSE) at SASE-DRDO ministry of defense Govt. of India. 2015.*
- ❖ *Awarded with the certificate at 7th Chandigarh Science Congress CHASCON-2013, for the poster presentation on Paper entitled “integration of the sequence boundaries, system tract, in Eocene Section of NW Himalaya, India*

SOFTWARES: - DIPS, UNWEDGE, WEDGE, AUTOCAD, STERONET, SLIDES ETC.

LANGUAGES: Hindi, English, Marathi.

2023-05-25