

CURRICULUM VITAE

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OBJECTIVE

With a whole-hearted professional attitude, the undersigned believes in contributing to the growth and success of an organization with advanced scientific & technological knowledge.

KEY QUALITIES

- Advanced Remote Sensing and GIS computational knowledge
- Good communication skills
- Motivated to bring novel ideas with critical thinking
- Adaptable to working in difficult terrain & rough conditions

EDUCATIONAL DETAILS

<u>DEGREE</u>	<u>BOARD/UNIVERSITY</u>	<u>YEAR</u>	<u>MARKS (%) / CGPA</u>
Ph.D.	IIT (ISM) Dhanbad	2012-2017	Awarded (Aug 2018)
M.Sc. (Tech) – Geology	Banaras Hindu University	2009-12	8.24/10
B.Sc. (Hons.) - Geology	University of Delhi	2006-09	72.0
10+2 - Science	C.B.S.E.	2006	67.3
10th	C.B.S.E.	2004	74.4

INDUSTRIAL TRAINING / SUMMER INTERNSHIP

1. **Uranium Corporation of India Limited, (UCIL) Narwa Pahar, East Singhbhum, Jharkhand** : - Effective application of Engineering Geology concerning prospecting and mining techniques of Uranium (Duration: 12-5-2010 to 12-6-2010)

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| 2. | <u>Tehri and Koteswar Dam sites (Uttarakhand)</u> : Detailed Geotechnical and Geological Mapping for slope stabilization (Using RMC / RMR) of abutments and downstream areas. |
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FIELD & INDUSTRIAL EXPERIENCE

GEOLOGICAL MAPPING IN ACTIVE TECTONIC TERRAIN

To access the evolution and present tectonic status of the Mahakoshal mobile belt / basin between Son Narmada North and Son Narmada South Faults, carried regional scale survey and mapping using high resolution satellite imagery and field validation.

Terrain:- Jabalpur, Chitrangi, Renukut, (Madhya Pradesh) & Son Valley (Uttar Pradesh)

GEOLOGICAL / GEOTECHNICAL INVESTIGATIONS

- (i). Blast optimization studies at different Pb-Zn underground mines of Hindustan Zinc Ltd, Rajasthan to increase productivity with enhanced safety.
- (ii). Fragmentation control blasting in limestone mines viz., Ambuja Cement, Satna Cement, etc. during production phase.
- (iii). Optimization of blast design parameters in order to control blast-induced ground vibration, air over-pressure (AOP), flyrocks, over breaks, in different opencast mines viz., Tata Iron Ore Mine, NMDC of India.
- (iv). Optimization of blast design parameters at Civil infrastructure projects in critical areas (nearby populated areas, old heritage structures situated in the vicinity of project locations) to control the excessive ground vibrations, fly-rocks, air-overpressure, and any kind of blast associated hazards to the human/ structure located nearby the site.

SUPERVISION & VALIDATION *(Surface and underground infrastructure projects)*

Geological field and Rock Mass Quality (RMC) investigations, underground tunnel face logs.

PROJECT REPORT & DATA EVALUATION

Rock class/ support system design parameters, longitudinal sections drawing/slope maps/foundation maps, etc. (as per scales).

QUALITY AND SAFETY MANAGEMENT

Manages quality, safety, economy, for timebound completion of the Project.

WORKED ON SIGNIFICANT PROJECTS

- (a). Navi Mumbai International Airport site
- (b). Jhansi-Bina Railway line extension near Betwa river site
- (c). Railway overbridge construction near Bano-Simdega Jharkhand
- (D). Rock / stone quarries in various sites in India.

PROJECT PARTICIPATED *(in last 01 year)*

- (a). New BG Railway line Project, Bairabi-Sairang section, Mizoram.
- (B). Geological Investigation for construction of Railway tunnel (TBM; 15.757 Km) RVNL Pkg- IV, Uttarakhand

LIST OF PUBLICATIONS**BASIN MORPHOMETRY AND ITS IMPLICATION ON BASIN EVOLUTION & GEOHAZARDS USING REMOTE SENSING AND GIS**

1. **Shankar R**, Satyam GP, Singh PK, et al. (2022) Impact of geomorphometric parameters on the occurrence and distribution of landslides in Yamuna River Basin, North-Western Himalaya, India. Journal of Mountain Science 19. <https://doi.org/10.1007/s11629-021-7081-z>. (Impact Factor: - 2.7)
2. Rai, N.K., Singh, D., Singh, P.K., **Shankar, R.**, Kainthola, A., Singh, T.N. (2021). Landslide Characteristics in Complex Weathering Terrain – A Case From Kerala, India, Proceeding of International Conference EGCON-2021, 9th to 11th December 2021 (Virtual Mode), pp. 465-470
3. **Shankar, R.**, Singh, A.K., Satyam, G. P., and Heidi Daxberger (2020) Active tectonics Influences in the Satluj River basin in and around Rampur, Himachal Himalaya, India. Journal of Arabian Geosciences, 13:624, <https://doi.org/10.1007/s12517-020-05473-w>. (Impact Factor: - 1.327).
4. Dubey, R.K. and **Shankar, R** (2019). Drainage Pattern and It's Bearings on Relative Active Tectonics of a Region: -A Study in the Son Valley, Central India. Journal of Geological Society of India, Vol.93, pp. 693-703. (Impact Factor: - 1.3).
5. Dubey, R.K., Gyan Prakash Satyam and **Ravi Shankar**, (2015). Rejuvenation and Accretion of Ganga River in and around Haridwar, Uttarakhand India, (Abstract), National Seminar on “R & D Prospective for Rejuvenation of River Ganga” December 16-17 at NIH, Roorkee.
6. **Ravi Shankar** and Dubey, R.K., (2014). Lithological Control on Changing River Patterns in Parts of Sonbhadra District, Uttar Pradesh, India. National Conference on “Water and its Sustainability in Mining and other Environment: Vision 2050 (WSME 2014), March 28-29, 2014.

OPTIMIZATION OF EXCAVATIONAL PARAMETERS FOR CONTROLLED GROUND VIBRATIONS, NOISE & FLYROCK HAZARD

1. Himanshu, V.K., Mishra, A.K., Priyadarshi, V., **Shankar, R.**, Yadav, R.S., and Singh P.K. (2021). Estimation of optimum burden for blasting of different rock strata in an Indian Iron Ore Mine, *Journal of the Geological Society of India*, 97, 760–766. (Impact Factor: - 1.3)
2. Paswan, R.K., Roy, M.P., **Shankar, R.** and Singh, P.K (2021). Blast Vibration and Fragmentation Control at Heavily Jointed Limestone Mine. *Geotechnical and Geological Engineering* (2021). <https://doi.org/10.1007/s10706-021-01705-2>. (Impact Factor: - 1.54)
3. Himanshu, V.K., Roy, M.P., **Shankar, R.**, Mishra, A.K., and Singh P.K (2021) Empirical Approach Based Estimation of Charge Factor and Dimensional Parameters in Underground Blasting. *Mining, Metallurgy & Exploration*, <https://doi.org/10.1007/s42461-020-00374-8>. (Impact Factor: - 1.02)
4. Vivek K Himanshu, **Ravi Shankar**, Ghulam Ghous, Saroj Ranjan Mahakud, Saikat Banerjee & Kajal K Mondal, (2018). Optimized Burden-Spacing for Improvement of Rock Fragmentation by Blasting. National Seminar on "Rock Blasting Techniques-Challenges and Opportunities" at CSIR-CIMFR, Dhanbad. (November 23-24, 2018).
5. Suraj Kumar, **Ravi Shankar**, R. Hembrom, Abhishek K. Singh, M.P. Roy and P.K. Singh (2018). Impact of underground blasting on overlying densely inhabited surface dwellings-A case study, *Rock Blasting Techniques Challenges and Opportunities (RBT)*, CSIR-CIMFR, Dhanbad. (November 23-24, 2018), Page 349-357

RELATED TO TECTONIC EVOLUTION AND THERMOTECTONICS

1. Dubey, R.K. and **Shankar, R** (2018). Provenance and Paleoweathering Attributes of Proterozoic Rock Formations from the Son Valley, Central India. *Journal of Geological Society of India*, Vol.91, March 2018, pp.307-314. (Impact Factor: - 1.3)
2. **Shankar, R** and Dubey, R.K. (2018). Thermo-seismic response of rock formations of Peninsular India in parts of Central India: -A tectonic prospective approach. *National Academy Science Letters*, Volume 41, Issue 2, pp 103–106. (Impact Factor: - 0.41)
3. Dubey, R.K. and **Shankar, R** (2017). Characterization of Fluid Inclusions Encaged in Quartz Veins of Parsoi Formation, Central India. *Journal Geological Society of India*, Vol.90, August 2017, pp.217-225. (Impact Factor: - 1.3).

TECHNICAL / SOFTWARE SKILLS

- **Operating system:** Windows, Mac OS-10, DOS
- **Geotechnical Software:** Geo orient, Dips, Phase, Un-Wedge

- **Remote sensing & GIS software:** QGIS/ArcGIS, Erdas Imagine, SNAP, Global Mapper, AutoCAD, Surfer
- **Other software:** M S Office / Open libre, Adobe Suites, CorelDraw, Origin Pro
- **Programming :** Matlab, Python (Basic knowledge)

HANDS-ON EXPERIENCE – INSTRUMENTATIONS

- **Petrographic Analysis** (Optical / Stereo Microscopy) – For Rock identification & Genesis.
- **Geomechanical Instruments** – UTM / Triaxial / Point load index / FWP etc.
- **X-ray fluorescence / X-ray diffraction** – For mineral / oxides composition of Rocks / Soil
- **Fluid inclusion Microscopy & Thermo-barometry analyser** – Understanding Thermotectonics of Rockmass

EMPLOYMENT DETAILS / WORK EXPERIENCE

1.	<u>Rock Excavation Engineering Division, CSIR-CIMFR</u> Project Associate (From March 2019 to June- 2021)
2.	<u>Geoconsult India Private Limited</u> Engineering Geologist (From July 2021 to September 2023)
3.	<u>Bakhtiyarpur Engineering College, Bakhtiyarpur, Patna-803212</u> Assistant Professor (From September 2023 to till date)

REFERENCES

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DECLARATION & SIGNATURE

I hereby, confirm that the information furnished in this document is accurate and true to the best of my knowledge and belief.

Place: Bakhtiyarpur


(RAVI SHANKAR)