Dr. Kripamoy Sarkar
Associate Professor
Department of Applied Geology
IIT (Indian School of Mines) Dhanbad
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Google Scholar: https://scholar.google.co.in/citations?user=BWs7i2YAAAAJ

ACADEMIC QUALIFICATIONS:

Examination	Branch/ Specialization	College/University /Institute	Class/ Division
B.Sc (Hons.)	Geology	Jadavpur University	First
M.Sc	Applied Geology	Jadavpur University	First
M.Tech	Geo-Exploration	IIT Bombay	First
Ph.D	Engineering Geology	IIT Bombay	First

DETAILS OF Ph.D:

Institute/University	Title of Ph.D Thesis	Year of Award of Ph.D
IIT Bombay	Landslide risk analysis around Luhri area, Lower Himalaya, Himachal Pradesh, India.	2009

DETAILS OF TEACHING/ PROFESSIONAL EXPERIENCE:

University / Organization	Designation	From	To	Total Period	Nature of Experience
IIT(ISM)Dhanbad	Associate Professor	12/04/2021	till date	-	P.G. & U.G Teaching
IIT(ISM)Dhanbad	Assistant Professor	17/06/2013	11/04/2021	7 yrs 10 months	P.G. & U.G Teaching
Assam University Silchar (Central University)	Assistant Professor	22/09/2010	16/06/2013	2 yrs 9 months	P.G. Teaching
Sardar Patel College of Engineering, Mumbai	Lecturer	11/09/2009	21/09/2010	1 yr	U.G. Teaching
HCC Ltd. Mumbai	Management Trainee-Geotech.	02/08/2005	31/08/2006	1 yr	Industrial

RESEARCH INTEREST:

- Engineering Geology
- Slope Stability
- Landslides
- Numerical modelling

MAJOR COURSES TEACHING/TAUGHT:

Sr. No	Course Code	Course Name	UG/PG
1	GLC 51103/ GLC 581	Structural Geology for Site Engineering	PG
2	GLC 51102/ GLC 580	Soil Engineering	PG
3	GLC52105/ GLD 591	Rock Slope Engineering	PG
4	GLC 14104	Physical and Structural Geology	PG
5	GLC 15112	Structural Geology	PG
6	GLC 15153	Sedimentary and Petroleum Geology	PG
7	GLC 23123	Geodynamics	PG
8	GLC 14158	Geology for Mining Engineers	UG
9	GLD12301/ GLI101	Earth System Science	UG
10	GLC 14258	Geology for Mining Engineer's Practical	UG
11	GLC 52205	Rock Slope Engineering Practical	PG
12	GLR 13252	Geology for Petroleum Engineer's Practical	UG
13	GLC 26237/GLC 10238	Engineering Geology Practical	PG
14	GLC 51202/ GLC 584	Soil Engineering Practical	PG
15	GLC 51203/ GLC 583	Structural Geology for Site Engineering Practical	PG
16	GLC 51222/51212	Tectonics and Structural Methods for Exploration Practical	PG
17	GLC 13201	Structural Geology Practical	PG
18	GLC 14257	Structural Geology Lab	UG
19	GLC19231/ GLC25231	Hydrogeology Practical	PG
20	GLR 13251	Mineralogy and Petrology Practical	UG
21	GLD 551	Elements of Rock Engineering	PG

EXTERNALLY FUNDED R&D PROJECTS ONGOING/COMPLETED:

Sr. No	Project Title	Sponsoring Agency	Project Value (Rs.)	Duration	Role
1	Landslide risk analysis of road cut hill slopes near Sonapur, Meghalaya, India.	DST (NRDMS)	25, 43, 200	30/09/2014 - 30/09/2017	Principal Investigator
2	Rockfall hazard assessment along the Road Cut Slopes on NH-44A between Aizawl city and Lengpui Airport, Aizawl, Mizoram, India.	Ministry of Earth Sciences	34,18,140	31/07/2015 - 31/07/2018	Co-Principal Investigator
3	Vulnerability analysis of	DST (NRDMS)	28,94,749	02/08/2018 -	Principal

	engineered slopes along NH-05, from Jeori to Tranda, Himachal Pradesh, India.			31/12/2021	Investigator
4	Landslide hazard assessment and mitigation - an integration of simulation techniques and machine learning algorithms in the Himachal Himalayas.	MoE(STARS)	49,50,000	29/05/2024 - 29/05/2027	Principal Investigator
5	Analysis, modelling and mitigation methods for landslides along Bhalukpong-Tawang road in Arunachal Pradesh, India	SERB(CRG)	53,55,720	31/05/2024 - 31/05/2027	Principal Investigator

R&D PROJECTS FUNDED BY IIT (ISM) DHANBAD:

Sr. No	Project Title	Sponsoring Agency	Project Value	Duration	Role
1	Determination of Dynamic Elastic Constants for different Geomaterials.	FRS, IIT (ISM) Dhanbad	Rs. 7,00,000/-	3 years	Principal Investigator
2	Failure Mechanism of Slopes in Jointed Rock Mass.	TEQIP III, IIT (ISM) Dhanbad	Rs. 2,00,000/-	2 years	Principal Investigator

SUPERVISION:

Ph.D Guidance:

Sl. No	Student's Name	Joining Date	Ph.D Thesis Title	Date of Award	Supervised / Supervising as
1	Tabish Rahman (Registration No. 17DR000587)	27/12/2017	Lithological control on the estimation of geomechanical properties of Lower Gondwana coal measure rocks of India.	**Awarded** (05/04/23)	**Sole Guide**
2	Barsa Acharya (Registration No. 16DR000178)	01/08/2016	Slope Stability analysis: A Himalayan Case Study.	**Awarded** (10/01/23)	**Principal Guide**
3	Anurag Niyogi (Registration No. 2015DR0045)	21/04/2015	Stability evaluation of road cut slopes along NH-66, Ratnagiri, Maharashtra, India.	**Awarded** (29/07/22)	**Principal Guide**
4	Meenakhsi Devi (Registration No.16DP000091)	03/08/2016	Landslide Hazard Analysis in Bhagirathi Valley (Uttarakhand), Northwest Himalaya	**Awarded** (01/08/22)	**Principal Guide**
5	Amit Chawla (Registration No.	01/12/2014	Analysis, Modelling and Mitigation methods for	**Awarded** (19/08/22)	**Co-Guide**

	2015DR1018)		Landslides in West Bengal (Darjeeling Region) – A Geotechnical and Geospatial Approach		
6	Jagadish Kundu (Registration No. 2015DR0282)	07/05/2015	Stability evaluation of hill slopes: New perspectives to rock material and rock mass characterization.	**Awarded** (15/01/21)	**Principal Guide**
7	Ashok Kumar Singh (Registration No. 2013DR0242)	24/07/2013	Landslide vulnerability analysis around Rampur area, Himachal Pradesh, India	**Awarded** (21/08/18)	**Principal Guide**
8	Prasanta Kumar Behera (Registration No. 2013DR0152)	24/07/2013	Dump slope stability analysis of open cast mines in Talcher coal field, Angul District, Odisha	**Awarded** (20/03/18)	**Principal Guide**
9	Manish Kumar Jha (Registration No. 2015DR0096)	14/11/2014	Thermo-mechanical characterization and simulation of buffer-rock barrier in a high-level nuclear waste repository.	**Awarded** (04/04/18)	**Co-guide**
10	Pradeep Kr. Gautam (Registration No. 2013DR0293)	29/08/2013	Thermo-mechanical behaviour of Indian Granite and Sandstone for underground disposal of high-level radioactive waste.	**Awarded** (21/02/17)	**Co-guide**
11	Avishek Dutta (Registration No. 21DR0036)	12/08/2021	Stability assessment of road-cut slopes with the application of numerical simulation and machine learning techniques.	Ongoing **PMRF**	**Sole Guide**
12	Saheli Ghosh Dastidar (Registration No. 21MT0346)	11/08/2021	Pore attributes of shale for estimation of gas storage potential.	Ongoing	**Principal Guide**
13	Megha Chowdhury (Reg.No22DR0126)	30/07/2022	Yet to be decided	Ongoing	**Principal Guide**
14	Shashi Prakash Mahli (Registration No. 23DR0157)	18/07/2023	Ye to be decided	Ongoing	**Principal Guide**
15	Shyam Raj B (Registration No. 23DR0167)	18/07/2023	Ye to be decided	Ongoing	**Sole Guide**
16	Sourav Sagar Say (Registration No. 24DR0187)	27/06/2024	Ye to be decided	Ongoing	**Sole Guide**
17	Dipika Keshri (Registration No. 17DP000337)	26/09/2017	Vulnerability analysis of Landslide in Tatyur region, near Aglar River, Uttarakhand, India	Ongoing	**Principal Guide**

18	Vivek Sharma (Reg. No: 24DP0163)	26/09/2024	Ye to be decided	Ongoing	**Sole Guide**
19	ATULYA KUMAR (Reg. No: 24DP0082)	22/05/2024	Ye to be decided	Ongoing	**Principal Guide**
20	Radhendra Narayan Sahoo (Reg. No: 24DP0261)	21/11/2024	Ye to be decided	Ongoing	**Sole Guide**

M. Tech Guidance:

Sl. No	Student's Name	M.Tech. Dissertation Title	Year
14.	Saheli Ghosh Dastidar	Pore attributes of shale for estimation of gas storage potential.	2023
13	Harini V	Numerical Simulation of a Road Cut Hill Slope in Kinnaur district of Himachal Pradesh, India.	2022
12	Avishek Dutta	Numerical Simulation of a Road Cut Hill Slope along NH-05 from Jeori to Tranda in Himachal Pradesh, India.	2021
11	Gulshan Kumar Yadav	Vulnerability analysis of the road cut rock slope along NH-05 in the Kinnaur district Himanchal Pradesh, India.	2021
10	Amitesh Nalin	Soil slope stability analysis along NH-66 near Sangameshwar, Ratnagiri, Maharashtra.	2019
9	Arpan Nandy	Debris slope stability assessment along NH-5, Himachal Pradesh.	2019
8	Sukomal Kumar	Evaluation of in-situ black size distribution and it's effect in rockfall simulation along NH-5 Near Rampur, Himachal Pradesh.	2019
7	Som nath	Relation of Joint Roughness with Mineralogical and Textural Properties of Host Rock	2018
6	Anindita Mishra	Slope stability analysis – A case study	2018
5	Ankur Sahay	Rockfall and soil slope stability analysis along nh-66 near sangameshwar, ratnagiri, maharashtra	2018
4	Deepshikha Kumari	Soil slope stability analysis in Rattacherra area, Meghalaya	2017
3	Barsa Acharya	Slope stability analysis of Road cut hill slopes near Nathpa area, Himachal Pradesh, India	2016
2	Nikhil Dattatraya Kulkarni	Assessing stability of waste dump- A case study	2015
1	Anand Patil	Petrophysical ananlyis and interpretation of clastic reservoir using industrial software	2015

M.Sc. / M.Sc. (Tech)/ Int. M.Tech Guidance:

Sl. No	Student's Name	M.Sc./M.Sc.Tech Dissertation Title	Year
38	Mithun Abhinav Chintamalla	Yet to be decided	2025
37	Swapna Sahu	Yet to be decided	2025
36	Sohini Biswas	Yet to be decided	2025
35	Navya Dharmdev	Yet to be decided	2025
34	Amarendra Singh	Yet to be decided	2025
33	Sourav Sagar Say	Rockfall analysis and design of mitigation measures- case studies from North East India.	2024
32	Subhasmita Sutar	Rock slope stability assessment along national highway 06 in Meghalaya, India.	2024
31	S. Saina	Distinct element modeling of jointed rock slopes in the Himachal Himalayas of India.	2024

30	Keshav Tarun	Landslide susceptibility using state-of-art machine learning algorithms.	2024
29	Sadaf Zakir	Influence of heat treatment on mineralogical properties of sandstone and shale from Jharia coalfield.	2023
28	Manjiri Khuje	Effects of elevated temperature on physical and physico-mechanical properties of shale of Jharia coalfield.	2023
27	Ipsita Dehury	To determine physico-mechanical properties and thermo-mechanical behaviour of Jharia sandstone at elevated temperature.	2023
26	Md. Sakir Ahmad	Road cut slope stability assessment along NH-5, Himachal Pradesh by using numerical simulation and kinematic analysis.	2022
25	Akash Mahanandia	Rock characterization for slope stability by using Q Slope, SMR, CSMR over NH-05 of Kinnaur District of Himachal Pradesh, India.	2022
24	Siddharth Shekhar Pradhan	Rock Mass Characterization of Road Cut Slope, Himachal Pradesh, India.	2021
23	Biswajit Nayak	Effect of Joint Orientation on Slope Stability in Road Cut Slope, Himachal Pradesh.	2021
22	Tejas Chaturvedi	Prediction of Uniaxial Compressive Strength Using Artificial Neural Network	2021
21	Anuj Singh	Change in physico-mechanical parameters of Raniganj rocks under dry and wet condition.	2020
20	Mohammad Saqib	Assessment of the paleo-environment and protolith of Raniganj basin shale.	2020
19	Naiyer Saquib	Estimation of the uniaxial compressive strength (UCS) using correlations with the indirect physico-mechanical tests.	2020
18	Diganta Kalita	Rock slope stability assessment along NH-154 near Kotropi region, Himachal Pradesh, India.	2019
17	Sanchari Ghosh	The assessment of slope stability along NH-05 in Nathpa-Agade area, Himachal Pradesh, India.	2018
16	Jagan Behera	Assessment of textural co-efficient for sandstones and empirical relation with R_N and rock weathering.	2018
15	Rakesh Behera	Parametric analysis of rockfall	2018
14	Sahana Mandal	Slope stability analysis of Jhakri region	2017
13	Tabish Rahman	Characterization and Correlation of Static and Dynamic Elastic Properties With P-wave Velocity of Coal Measure Rocks	2017
12	Nitish Vishwakarma	Ground water resource estimation of Mahuda basin located in the western part of Jharia coalfield	2017
11	Anshita nayak	Geotechnical Investigation of Bhubaneswari Coal Mines Talcher Area	2016
10	Mophi Mili	Landslide Hazard Zonation Along Road cut slopes in Sonapur Area Meghalaya	2016
9	Kakali Dutta	Jointed Rockmass behavior along road cut slope in and around Jiribam tunnel area, Manipur	2013
8	Dhiraj Pegu	An Empirical Correlation of Geomechanical Parameters with the Point Load Strength Index	2013
7	Prakash Biswakarma	Instability analysis of slopes using Slope Mass Rating – A case study	2013
6	Himakshi Goswami	Geotechnical investigation of road hill slope near Jiribam-Tupul tunnel, Manipur	2013
5	Anuj Gogoi	Rockmass classification using RMR and Q-system	2013
4	Bijit Panging	Co-relating slake durability index with UCS, Point load strength, Shear strength & Absorption values of sandstone	2012
3	Sujata Das	Geotechnical investigation of Sonapur landslide, Meghalaya.	2012
2	Mousumi Gogoi	Application of kinematic analysis for landslide hazard appraisal	2012
1	Mithun Deb	Stability Analysis of Cut Slopes Using Slope Mass Rating along NH-44, Meghalaya	2012

AWARDS AND HONOURS:

- **Associate Editor,** Journal of Earth System Science, 2024-2026.
- **Expert Member,** All India Council for Technical Education (AICTE), 2025.
- **Co-Convener**, National Seminar on Technological Advancements for Sustainable Mining and Exploration (TASME-2025), CSIR-CIMFR Dhanbad, 2025.
- **Indian Examiner** (Mr. Abinash Bal) for the Ph.D Thesis Evaluation, Department of Earth Sciences, IIT Kanpur, 2024.
- **Indian Examiner** (Mr. Abhishek Srivastav) for the Ph.D Thesis Evaluation, Department of Geology, Banaras Hindu University, 2024.
- **Session Chair**, International Conference on Geotechnical Issues in Energy, Infrastructure and Disaster Management (ICGEID-2024), IIT Patna, 2024.
- **Co-Convener**, International Conference on Geotechnical Issues in Energy, Infrastructure and Disaster Management (ICGEID-2024), IIT Patna, 2024.
- **Session Chair**, ISRM specialized SLRMES conference on Rock Mechanics for Infrastructure and Geo-resources Development, Colombo, Sri Lanka, 2023.
- **Expert Member,** Upgradation of CSIR-JRF and Extension of CSIR-SRF, Wadia Institute of Himalayan Geology, 26.07.2023.
- **Indian Examiner** (Mr. Rahul Kumar Verma) for the Ph.D Thesis Evaluation, University of Lucknow, 2023.
- **Indian Examiner** (Mr. Soumya Darshan Panda) for the Ph.D Thesis Evaluation, IIT Roorkee, 2023.
- **Review Editor,** Frontiers in Earth Science Journal, 2023.
- **Inder Mohan Thapar Research Award** (FY 2020) from IIT (ISM) Dhanbad, 2022.
- **Indian Examiner** (Mr. Jaspreet Singh) for the Ph.D Thesis Evaluation, IIT Roorkee, 2022.
- **Editorial Board Member,** Journal of Geomaterials,2022.
- **Indian Examiner** (Mr. Debanjan Chandra) to conduct Ph.D Viva voce, Dept. of Earth Sc., IIT Bombay, 2022.
- **External expert** in Faculty Selection, VIT-CDMM, Vellore, 2022.
- **Joint Convener** and **Member of Editorial Board**, International Conference on Geotechnical challenges in Mining, Tunneling & Underground structures, 2021.
- **Indian Examiner** (Mr. Amulya Ratna Roul) for the Ph.D Thesis Evaluation, IIT Roorkee, 2021.
- **Indian Examiner** (Mr. Tariq Siddique) to conduct Ph.D Viva voce, Earth Sc. Dept., IIT Roorkee, 2019.
- **Co-Chair,** 4th Indian Landslide Congress (ILC, 2017), Theme 2: Rainfall and Landslide Hazard Zonation, IIT Bombay, 2017.
- **Best Paper Award** '4th Indian Landslide Congress (ILC), 2017.
- **Best Paper Award** 'Indorock 2014, 5th Indian Rock Conference, Indian Society for Rock Mechanics and Tunneling technology, 2017.
- **Indian Examiner** (Mr. Siva VHR) to conduct the Ph.D Viva voce, Anna University, 2017.
- **Outside Subject Expert** for extension of UGC JRF, IIT Kharagpur, 2015.
- **Expert Member** for campus selection at IIT Bombay, Coal India Limited, 2010.
- **External Examiner** for M.Tech. Programmes, Dept. of Earth Sciences, IIT Bombay, 2010.
- **Best Paper Award,** Indorock 2009, Indian Society for Rock Mechanics and Tunneling technology, 2011.
- Award of SERC **Fast Track Project for Young Scientist**, DST, 2009.
- Award of **Senior Research Fellowship**, CSIR, 2008.
- **All India Rank 21st in GATE** (Graduate Aptitude Test in Engineering), 2003.

- **Qualified in NET** (National Eligibility Test), June, UGC-CSIR, 2003.
- **Distinction** in Bachelor of Science, Jadavpur University, 2000.
- **Editorial Member,** International Journal of Earth Sciences and Engineering.
- **Reviewer,** Arabian Journal of Geosciences.
- **Reviewer,** International Journal of Neural Computing and Applications.
- **Reviewer,** International Journal of Environmental Engineering Science.
- **Reviewer,** International Journal of Environmental Earth Science.
- **Reviewer,** International Journal of Geomaterial.
- **Reviewer,** International Journal of Scientia Iranica.
- **Reviewer,** Bulletin of Engineering Geology and the Environment
- **Reviewer,** Geoscience Frontiers.
- **Reviewer**, Journal of African Earth Sciences.
- **Reviewer**, Geomatics, Natural Hazards and Risk.
- **Reviewer,** Earth Science Research
- **Reviewer,** Current Science
- **Reviewer,** Journal of Earth System Science
- **Reviewer,** Advances in Civil Engineering
- **Reviewer,** Journal of the Geological Society of India
- **Reviewer,** Indian Geotechnical Journal
- **Reviewer,** Journal of Himalayan Geology
- **Reviewer,** Geomechanics and Geoengineering: An International Journal
- **Reviewer,** International Journal of Natural Hazards
- **Reviewer**, Rock Mechanics Bulletin

RESEARCH PUBLICATIONS:

Journal Papers Published in Indexed Journals: (SCI/SCIE/SCOPUS)

1. Dutta, A., and **Sarkar, K.**, 2024, **A neural network model for predicting stability of jointed rock slopes against planar sliding,** *Journal of Earth System Science* Vol-133 (201), pp.1-15 (Q3; IF: 1.3)
2. Dutta, A., **Sarkar, K.,** and Tarun, K., 2024, **Machine learning regression algorithms for predicting the susceptibility of jointed rock slopes to planar failure,** *Earth Science Informatics*, https://doi.org/10.1007/s12145-024-01296-5 *(Q2; IF: 2.7)*
3. Devi, M., Gupta, V., and **Sarkar, K.**, 2024, **Landslide susceptibility zonation using integrated Supervised and Unsupervised Machine Learning techniques in the Bhagirathi Eco-Sensitive Zone (BESZ), Uttarakhand Himalaya, India,** *Journal of Earth System Science,* Vol-133(131), pp.1-25 https://doi.org/10.1007/s12040-024-02344-w (Q3; IF: 1.3)
4. Keshri, D., **Sarkar, K.**, and Chattoraj, S.L., 2024, **Landslide Susceptibility Mapping in Parts of Aglar Watershed, Lesser Himalaya Based on Frequency Ratio Method in GIS Environment,** *Journal of Earth System Science*, *Vol-133,1, pp.1-26*. https://doi.org/10.1007/s12040-023-02204-z . (Q3; IF: 1.3)
5. Rahman,T., **Sarkar, K.**, and Sahu, S.,2023, ***Correlations between dynamic elastic properties and P-wave velocity for different rock types****,* Indian Geotechnical Journal, https://doi.org/10.1007/s40098-023-00793-6*. (IF: 1.4)*
6. Chawla, A., **Sarkar, K.,** Abhishek, R., Chawla, S., Pasupuleti, S., and Mishra, S., 2023, ***A geotechnical approach to compare different slope stabilization techniques for failed slope in the Darjeeling hills, India,*** *Environmental Earth Sciences,* Vol-82(376), pp.1-15. https://doi.org/10.1007/s12665-023-11054-3. *(Q2; IF: 2.8)*

7. Kundu, J., **Sarkar, K.,** Ghaderpour, E., Scarascia Mugnozza, G., and Mazzanti, P., 2023, ***A GIS-Based Kinematic Analysis for Jointed Rock Slope Stability: An Application to Himalayan Slopes,*** *Land,* Vol-12(402), pp.1-27. https://doi.org/10.3390/land12020402. *(Q2; IF: 3.2)*
8. Niyogi, A; Ansari, T.A., Sathapathy, S.K., **Sarkar, K.,** and Singh, T.N., 2023, **Machine Learning Algorithm for the Shear Strength Prediction of Basalt-driven Lateritic Soils,** *Earth Science Informatics,* Vol-16,pp.899–917; *https://doi.org/10.1007/s12145-023-00950-8. (Q2; IF: 2.7)*
9. Rahman,T., and **Sarkar, K.**, 2023, ***Correlations between Uniaxial Compressive Strength and Dynamic Elastic Properties for six rock types****, International Journal of Geomechanics, 10.1061/IJGNAI.GMENG-7854. (Q2; IF: 3.3)*
10. Rahman, T., and **Sarkar, K.**, 2023, **Empirical correlations between uniaxial compressive strength and density on the basis of lithology: implications from statistical and machine learning assessments,** *Earth Science Informatics, DOI:10.1007/s12145-023-00969-x (Q2; IF: 2.7)*
11. Rahman, T., **Sarkar, K.,** Niyogi, A., Mahanandia, A., and Ahmad, S., 2022, **Paleo-environmental study of the Raniganj and Barakar Formations: Implications from the Geochemical and Geomechanical Aspects of Sandstone and Shale,** *Journal of Geological Society of India, Vol-98, PP.1497–1504. https://doi.org/10.1007/s12594-022-2204-x.(Q3; IF: 1.2)*
12. Kundu,J., **Sarkar, K**., Verma, A.K., and Singh,T.N., 2022, ***Novel methods for quantitative analysis of kinematic stability and slope mass rating in jointed rock slopes with the aid of a new computer application****,* Bulletin of Engineering Geology and the Environment, Vol-81, PP.1-29. https://doi.org/10.1007/s10064-021-02524-8. *(Q1; IF: 3.7)*
13. Rahman,T., and **Sarkar, K**., 2022, **Estimating Strength Parameters of Lower Gondwana Coal Measure Rocks under Dry and Saturated Conditions,** *Journal of Earth System Science , Vol-131(3), pp.1-18.(Q3; IF: 1.3)*
14. Kundu, J., **Sarkar, K.,** and Singh,T.N., 2022, **Stability assessment of a weathered rock slope with surficial soil cover-A case study from Jaintia Hills, India**, *Himalayan Geology, Vol-43(2), pp.435-441. (Q3; IF: 1.2)*
15. Devi,M., Gupta, V., Solanki, A. and **Sarkar, K.,** 2022, **Assessment of Slope instability using Kinematic analysis and Finite Element Modelling in the Main Central Thrust zone, Bhagirathi Valley, NW Himalaya**, *Himalayan Geology, , Vol-43(1A), pp.51-60.(Q3; IF: 1.1).*
16. Rahman,T., and **Sarkar, K.** 2021, **Lithological Control on the Estimation of Uniaxial Compressive Strength by the P-Wave Velocity Using Supervised and Unsupervised Learning**, *Rock Mechanics and Rock Engineering*,Vol-54,pp.3175-3191, https://doi.org/10.1007/s00603-021-02445-8. *(Q1; IF: 5.5)*
17. Singh,A.K, Kundu,J. **Sarkar,K**., Verma, H.K., and Singh,P.K, 2021, ***Impact of rock block characteristics on rockfall hazard and its implications for rockfall protection strategies along Himalayan highways: A case study****,* Bulletin of Engineering Geology and the Environment,Vol-80,pp.5347–5368.https://doi.org/10.1007/s10064-021-02288-1. *(Q1; IF: 3.7)*
18. Rahman,T., **Sarkar, K.**, and Singh, A.K., 2020,***Correlation of Geomechanical and Dynamic Elastic Properties with the P-wave Velocity of Lower Gondwana Coal Measure Rocks of India****, International Journal of Geomechanics, DOI: 10.1061/(ASCE)GM.1943-5622.0001828. (Q2; IF: 3.3)*
19. Kundu, J., **Sarkar, K.**, Singh, A.K., and Singh, T.N., 2020, ***Continuous functions and a computer application for Rock Mass Rating,*** *International Journal of Rock Mechanics and Mining Sciences, Vol-129, 104280.(Q1; IF: 7.0)*

20. Acharya, B., **Sarkar, K.**, Singh, A.K., and Chawla, S., 2020, **Preliminary slope stability analysis and discontinuities driven susceptibility zonation along a crucial highway corridor in higher Himalaya, India**, *Journal of Mountain Science, Vol-17(4),801-823. (Q3; IF: 2.3)*
21. Niyogi, A; **Sarkar, K.,** Singh, A.K., and Singh, T.N., 2020, **Geo-engineering classification with deterioration assessment of basalt hill cut slopes along NH 66, near Ratnagiri, Maharashtra, India,** *Journal of Earth System Science, doi.org/10.1007/s12040-020-1378-0*. (Q3; IF: 1.3)
22. *Chawla ,A, Srinivas, P, Chawla, S, Rao, A. C. S.,* ***Sarkar,K*** *and Dwivedi,R,2019,* ***Landslide Susceptibility Zonation Mapping: A Case Study from Darjeeling District, Eastern Himalayas, India,*** *Journal of the Indian Society of Remote Sensing, Vol-47(3), pp.497-511.(Q3; IF: 2.2)*
23. *Chawla ,A Chawla,S Srinivas,P, Rao, A. C. S.,* ***Sarkar,K*** *and Dwivedi,R,2018,* ***Landslide Susceptibility Mapping in Darjeeling Himalayas, India,*** *Advances in Civil Engineering;* doi.org/10.1155/2018/6416492. *(Q3; IF: 1.5)*
24. *Roy,N., Sarkar,R.,* ***Sarkar,K.,*** *and Fulwaria,G., 2018,* ***Assessment of Vulnerability of Rock Slope Considering Material and Seismic Variability,*** *Journal of Geological Society of India, 92 (4), 449-456. (Q3; IF: 1.2)*
25. Kundu,J., **Sarkar, K.**, Singh, P.K., and Singh, T.N., 2018, ***Deterministic and Probabilistic Stability Analysis of soil slope - A Case Study,*** *Journal of Geological Society of India, Vol-91(4), pp.389-516.(Q3; IF: 1.2)*
26. Singh,A.K., Kundu,J., and **Sarkar, K.**,2018, **Stability analysis of a recurring soil slope failure along NH-5, Himachal Himalaya, India,** *Natural Hazards, Vol-90(2), pp.863-885. (Q2; IF: 3.3)*
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29. Kundu,J., **Sarkar, K.**, Tripathy, A, and Singh, T.N., 2017, ***Qualitative stability assessment of cut slopes along the National Highway-05 around Jhakri area, HimachalPradesh, India,*** *Journal of Earth System Science , .Vol-126, pp.* 112. *(Q3; IF: 1.3)*
30. Kundu,J., **Sarkar, K**., and Singh,T.N., 2017, **Static and Dynamic Analysis of Rock Slope - a Case Study,** Symposium of the International Society for Rock Mechanics, Procedia Engineering, Vol.191,pp.744–749.
31. Behera,P.K., **Sarkar,K**; Singh,A.K, Verma,A.K and Singh,T.N, 2016, **Dump Slope Stability Analysis – A Case Study,** *Journal of Geological Society of India*, Vol-88(6),pp.725-735. *(Q3; IF: 1.2)*
32. **Sarkar,K**; Singh,A.K, Niyogi,A, Behera,P.K. Verma,A.K and Singh,T.N, 2016, **The assessment of slope stability along NH-22 in Rampur-Jhakri area, Himachal Pradesh, India.** *Journal of Geological Society of India*, Vol- 83(3),pp. 387-393. *(Q3; IF: 1.2)*
33. Gautam,P.K; Verma,A.K; Jha,M.K.; **Sarkar,K**; Singh,T.N, Bajpai,R.K, 2016, Study of Strain Rate and Thermal Damage of Dholpur Sandstone at Elevated Temperature, *Rock Mechanics Rock Engineering*. Vol-49(9), pp.3805-3815. *(Q1; IF: 5.5)*

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1. Buragohain,B., Kundu,J., **Sarkar, K**. and Singh, T.N., 2016, **Stability Assessment of a Hill Slope-An Analytical and Numerical Approach,** *International Journal of Earth Sciences and Engineering,* Vol-9(3), pp.269-273.
2. Verma,A.K, Singh,T.N, Chauhan,N.K. and **Sarkar,K,**2016, **A Hybrid FEM–ANN Approach for Slope Instability Prediction**, J. Inst. Eng. India Ser. A.. Online DOI: 10.1007/s40030-016-0168-9.
3. **Sarkar, K** and Singh, T.N, 2011, **Instability analysis of slope along NH-22 around Sainj area, H.P.**, *Indian Landslides*, Vol-49(1), pp.9-12.
4. Verma, A.K., Singh, T.N., Verma, M.K. and **Sarkar, K**., 2009, **Predictions of shear displacement in fully grouted rock bolt**, *Journal of Rock Mechanics and Tunneling Technology ,*Vol-15(2), pp.117-130.
5. **Sarkar, K**. and Singh, T.N., 2009, **Prediction of strength parameters by dynamic wave,** *International Journal of Earth Sciences and Engineering,* Vol-2(1), pp.12-19.
6. **Sarkar, K**, Sazid, M., Khandelwal, M.and Singh, T.N. 2009, **Stability analysis of soil slope in Luhri area, Himachal Pradesh**, *Mining Engineers Journal,* Vol-10(6), pp.21-27.
7. Singh, T.N. and **Sarkar, K.**, 2009, **Landslides and flooding around Mumbai**, *Journal of Indian Landslides*, Vol -2(1), pp. 1-8.
8. Singh, T.N., Dubey, S., Gupta, N. and **Sarkar, K.,** 2009, **Effect of pH on various physico-mechanical properties of basalt rock,** *Mining Engineers Journal*, Vol-10(10), pp.17-23.

9. **Sarkar, K**. and Singh, T.N., 2008, **Slope Stability Study of Himalayan Rock-A Numerical Approach,** *International Journal of Earth Sciences and Engineering,* Vol-1, pp.7-16.
10. Sinha,S.C, **Sarkar,K** and Singh,T.N.,2008,**Geotechnical investigation of road hill slope near Bhatan tunnel along Mumbai-Pune expressway, Maharashtra**, *Mining Engineers Journal*, Vol - 10(3),pp.24-27.
11. **Sarkar, K**., Gulati,A. and Singh, T.N., 2008, **Landslide Susceptibility Analysis Using Artificial Neural networks and GIS in Luhri area, Himachal Pradesh,** *Journal of Indian Landslides,* Vol -1(1), pp. 11-20.
12. **Sarkar, K.** and Singh, T.N., 2007, **Evaluation of Instability Analysis of Slope – A Numerical Approach,** *Mining Engineers Journal,* Vol-8, pp.11-31.
13. Singh, T.N., Bhardwaj, V., Dhonta, L. and **Sarkar, K**., 2007, **Numerical analysis of instability of slope near Rudraprayag area, Uttarakhand,** *Indian Journal of Engineering Geology,* Vol-34(1-4), pp.33-41.
14. Singh, T.N., Barde, K.S., Purwar, N., Gupta, S. and **Sarkar, K.**, 2007, **Effects of heightening on overburden spoil dump stability,** *Mining Engineers Journal,* Vol - 9(2), pp.16-23.
15. Singh, T.N., **Sarkar, K.** and Bali, R., 2005, **A Geotechnical Investigation of Rocks of Amiyan Landslide area, Kumaun Himalayas, Uttrakhand,** *Mining Engineers Journal,* Vol-1, pp. 21-26.

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2. Dutta, A., **Sarkar, K.,** and Singh, T.N., 2025, **Rockfall Simulation with Distinct Element Method in a Jointed Rock Slope with Overhang—A Case Study from the Himachal Himalayas in India,** ICGEID-2024*,* pp.3-13.
3. **Sarkar, K.,** and Dutta, A., 2023, **Comparative study of finite and distinct element methods for stability assessment of a jointed rock slope,** 15th ISRM Congress, *Austrian Society for Geomechanics,* pp. 2892-2897.
4. Rahman, T., Niyogi, A., and **Sarkar, K.,** 2022, **Determination of Continuous Kinematic Criticality in Structurally Homogeneous Zones - A new Approach,** ARMA 22–0198, https://doi.org/10.56952/ARMA-2022-0198.
5. Acharya, B., Kundu,J., **Sarkar, K**., and Chawla, S., 2017, **Stability Assessment of a Critical Slope near Nathpa Region, Himachal Pradesh, India,** Indian Geotechnical Conference, IIT Guwahati, PP. 1-4.
6. Behera, P.K; Niyogi A; **Sarkar, K.,** 2017, **Stability estimation of a waste dump in Talcher opencast coalmine: A case study,** Mine Fest India 2017, Exhibition & symposium on mining, Kodaikanal, India, pp. 138-144.
7. Singh, A.K; **Sarkar, K.,** and Singh, T.N., 2016, **Stability assessment of cut-slope along NH-22, Rampur area, Himachal Pradesh, India**, Sixth Indian Rock Conference (INDOROCK 2016), pp. 842- 853.
8. Niyogi, A; **Sarkar, K.,** and Singh, T.N., 2016, **Effect of geomechanical properties on the stability of basaltic road cut slopes at Ratnagiri, Maharashtra,** Sixth Indian Rock Conference (INDOROCK 2016), pp. 854-862.
9. Kundu, J., Mahanta, B, Tripathy, A; **Sarkar, K**., and Singh,T.N., 2016, **Stability Evaluation of Jointed Rock Slope with Curved Face,** Sixth Indian Rock Conference (INDOROCK 2016), pp. 971 -978.

10. Kundu, J., **Sarkar, K.**, and Singh, A.K., 2016, **Integrating structural and numerical solutions for road cut slope stability analysis—A case study, India,** Rock Dynamics: From Research to Engineering: Proceedings of the 2nd International Conference on Rock Dynamics and Applications (CRC Press), pp.457- 462.
11. Kumar, N., Verma, A.K., Singh, T.N and **Sarkar, K.** , 2014, **Comparative Analysis of methods for prediction of a Landslide,** *INDOROCK-2014, New Delhi, pp. 567-576.*
12. ***Sarkar, K.*** *and Singh, T.N., 2010, Rock Slope Stability Analysis along NH-22 in Luhri Area, Himachal Pradesh -A case study, Indian Geotechnical Conference -2010 GEOtrendz, 695-698.*
13. **Sarkar, K.** and Singh, T.N., *2010,* ***Road Cut stability analysis along NH-22 in Luhri area , Himanchal Pradesh,*** *Rock Mechanics in civil and environmental engineering(Zhao,Labiouse,Dudt and mathier,Eds) Taylor and Francis pub.,pp.659-662.*
14. Singh,T.N., Verma, A.K., and **Sarkar, K.,** 2009, **Static and Dynamic analysis of a landslide- A Case Study,** *Proceeding of National seminar on Geodynamics, sedimentation and biotic response in the context of India-Asia collision, Aizwal, Mizoram*,pp.49-65.
15. **Sarkar, K.** and Singh, T.N., 2008, **Slope failure analysis in road cut slope by numerical method,** *5th International Symposium, ISRM, Tehran*, pp.635-642.
16. **Sarkar, K**. and Singh, T.N., 2008, **Environmental impact assessment of hill cut road, Himachal Pradesh,** *Proceedings of EMMA, Pilgrim Press Pvt. Ltd., Varanasi*, pp.655-663.
17. Singh, T.N., and **Sarkar, K.,** 2008, **Assessment of instability analysis of slope by numerical method,** *Proceeding of Landslide Management-Present scenario and future directions, CBRI, Roorkee, pp.218*-231.
18. Hydrose, M.K and **Sarkar, K**., 2007, **Design of Waste Dump Slope in an Iron ore Mine – A case Study,** *International seminar on Mineral Processing Technology, Bombay,* pp. 682-684.
19. Singh, T.N. and **Sarkar, K**., 2007, **Engineering Geological Characteristic of Unconsolidated Sandstone from Himalaya, India;** *National conference on Emerging Technology and Developments in Civil Engineering, Amravati,* pp.75-81.
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21. Singh, T.N., Barde, K.S., Purwar, N., Gupta, S. and **Sarkar, K.**, 2007**, Assessing Stability of Waste Dump – A Case Study**, *Tenth International Symposium on Environmental Issues and Waste Management in Energy and Mineral Production*, *Thailand,* pp.769-779.
22. Singh, T.N and **Sarkar, K**., 2006, **Indian Mineral Industry on the path of Sustainable Development,** *National workshop on Occupational safety, Health and Environmental Issues in Industries, Goa*, pp. 73-86.
23. Singh, T.N and **Sarkar, K**., 2005, **Geotechnical Investigation of Amiyan landslide hazard zone in Himalayan Region, Uttaranchal, India,** *First International Conference on Geotechnical Engineering for Disaster Mitigation and Rehabilitation, Singapore,* DOI No:10.1142/9789812701602_0036, pp. 355-360.
24. Singh, T.N. and **Sarkar, K**., 2005, **Influence of chemical properties on strength of sandstone in Himalayan Region, Uttaranchal;** *National conference on Geotechnics and Environment for Sustainable Development, Nagpur,* pp. 6-12.
25. Majumdar, R.K., Mukherjee, A.L., Roy, N.G, **Sarkar, K.** and Das, S., 2002, **Groundwater studies on south Sagar Island region, south 24 parganas, West**

Bengal; National *Conference on Analysis and Practice in Water Resources Engineering for Disaster Mitigation*, *Kolkata, New Age Publishers, V.1,* pp. 175 - 183.

Edited Book Chapters:

1. Niyogi, A., **Sarkar, K**., Rahman, T., Singh, T.N. 2023, **Stability Assessment of Lateritic Soil Slope Along NH-66, Ratnagiri Maharashtra, India,** *Landslides: Detection, Prediction and Monitoring, Springer, Cham, ISBN NO. 978-3-031-23858-1, pp.161-174.*
2. **Sarkar ,K.,** Verma, A. K and Singh , T. N., 2011, **Jointed rockmass behavior along road cut slope in Luhri area, Himachal Predesh, India,** *Slope Stability- Natural and Man made slope, chap.- 10 (edited by T N Singh and Y C Sharma), Yavu education of India, New Delhi, ISBN NO. 978-93-8071-84-0,* pp. 155-165.
3. Verma, A.K., **Sarkar, K.** and Singh, T. N., 2011, **Numerical modeling for Landslides,** *Slope Stability- Natural and Man made slope, chap.- 24(edited by T N Singh and Y C Sharma), Yavu education of India, New Delhi, ISBN NO. 978-93-8071-84-0,* pp. 387-405.
4. Singh, T.N., **Sarkar, K**., and Gulati, A., 2010, **Slope Stability Analysis for Management of Landslides,** Natural and Man Made Disasters, MD *Publications Pvt. Ltd., New Delhi (Edited by K.K Singh and A.K Singh), ISBN-13: 9788175332027,* pp.83-121.
5. Singh, T.N., **Sarkar, K**., and Gulati, A., 2009, **Application of Soft Computing for Landslide and its Parametric Analysis,** *NOVA Science Publishers, Inc., USA (Edited by P.K. Joshi et al.),* pp.349-382.

Abstracts in Conferences:

1. **Sarkar, K.,** and Dutta, A., 2023, **Stability assessment of a jointed rock slope with insights into numerical simulation – a case study from the Himachal Himalayas in India,** *ISRM specialized SLRMES conference on Rock Mechanics for Infrastructure and Geo-resources Development , pp.90-91.*
2. Dutta, A., and **Sarkar, K.,** 2023, **Numerical analysis of a jointed rock slope in the Himalayan region of India – a comparative study between continuum and discontinuum approaches,** *ISRM specialized SLRMES conference on Rock Mechanics for Infrastructure and Geo-resources Development, pp.42-43.*
3. Kundu, J., **Sarkar, K**., Jaboyedoff, M and Singh, T.N., 2019, **GISMR: A Computer Application to Perform Kinematic Analysis, Slope Mass Rating and Optimization of Slope Angle on a GIS Platform With the Aid of ArcGIS or QGIS,** *AGUFM 2019, NH53A-05.*
4. Kundu, J., **Sarkar, K**. and Singh, A.K, 2019, **Easy SMR: A computer program to check kinematic feasibility and calculate Slope Mass Rating., Geophysical Research Abstracts,** Vol. 21, EGU2019-1540.
5. Nath, S., Kundu, J., Singh, A.K., Acharya, B., and **Sarkar, K**., 2018, **Lithological control on joint roughness**, *Emerging Trends in Geophysical Research for Make-in-India (ETGRMI) Abstract volume , 9-11 March 2018, IIT(ISM) Dhanbad, pp. 149-151.*
6. Rahman, T., Singh, A.K., and **Sarkar, K**., 2018, **Correlation of Vp with UCS and BTS of coal measure rocks,** *Emerging Trends in Geophysical Research for Make-in-India (ETGRMI) Abstract volume, 9-11 March 2018, IIT(ISM) Dhanbad, pp.151-152.*
7. *Acharya, B., Mishra, A., and* ***Sarkar, K.****,2018,* ***Rock Mass Characterization of a Highway Slope along NH-5, Himachal Pradesh****, Emerging Trend in Geophysical Research for Make-in-India (ETGRMI), Abstract volume, 9-11 March 2018, IIT(ISM), Dhanbad, pp.115- 116.*

8. Behera, P.K, Singh, A.K., Niyogi, A., and **Sarkar, K**., 2017, **Comparative stability assessment of a coalmine dump in static and dynamic condition: A case study***, In 4th Indian Landslide Congress (ILC), 8-9 Dec 2017, IIT Bombay, pp.72.*
9. Niyogi, A., Sahay, A., Singh, A.K., **Sarkar, K**., and Singh, T.N., 2017, **Rockfall hazard analysis of road cut slope along NH-66 near Sangameshwar, Ratnagiri using rigid body model,** *4th Indian Landslide Congress, 8-9 Dec 2017, IIT Bombay, pp.57.*
10. **Sarkar, K.,** and Verma, A.K., 2013, **Static and Dynamic analysis of soil slope-A case study,** *International Conference on Future Challenges in Earth Sciences for Energy & Mineral Resources*, pp.236.
11. *Verma, A.K, **Sarkar, K.** and Singh, T.N., 2013, **A Neurofuzzy Approach to Predict Water Quality from Field Parameters,** National Seminar on Recent Approaches to Water Resource Management, pp.67.*

MEMBERSHIP:

- Life Member (LM-11234), The Mining, Geological & Metallurgical Institute of India.
- National Council Member, Mining Engineers' Association of India, 2023- till date
- Life Member, (LM-1700) Indian Society of Engineering Geology.
- Life Member, Mining Engineers' Association of India, Hyderabad.
- Life member (Membership No: 1164), Indian Geotechnical Society (Mumbai Chapter).
- Member, Society of Exploration Geophysicists.
- Life Member, Earth sciences Association, IIT Bombay.

DEPARTMENT/ INSTITUTE LEVEL RESPONSIBILITIES

- **Convener, DUGC,** Department of Applied Geology, 19.10.24 – 30.06.26.
- **Institute Representative** (IR) to conduct the JEE (Advanced) examination, 2024.
- **Member of selection committee** for project fellow, CIMFR, Dhanbad, 2024.
- **Institute Representative** (IR) to conduct the JEE (Advanced) examination, 2023.
- **Faculty-In charge,** Student Training, 06.01.22 – till date.
- **Member of DFSC,** Department of Applied Geology, 01.12.21 – till date.
- **Warden,** Amber Hostel, IIT(ISM) Dhanbad, 11.06.18 –30.06.2020.
- **Member**, Heritage Buildings Committee, IIT(ISM), 2019 - till date.
- **Faculty Co-In charge,** Local Geological Field Training, II M.Sc.Tech (AGP) and VI Integrated M.Tech (AGP), 2019.
- **Coordinator,** M.Tech (Engineering Geology), IIT(ISM), Dhanbad, 2014-till date.
- **Laboratory In-charge**: Engineering Geology Lab (Applied Geology), ISM, Dhanbad (2013- till date).
- **Member of DPGC,** Department of Applied Geology, 2018-till date.
- **Member of space committee,** Department of Applied Geology, 2018-2022.
- **Member of selection committee** for project fellow, CIMFR, Dhanbad, 2018
- **Invigilator**, IIT-Joint Entrance Examination (Advanced), 2017.
- **DSC Member** of various sisters Department of the Institute, 2013- till date.
- **Observer** for the Kolkata Center for conducting M.Sc./M.Sc. Tech/M.Phil/M.Tech/JRF Entrance Examination, 2015-16, 2016-17.
- **Examination coordinator**, Department of Applied Geology, 2015-till date.
- Involvement in laboratory development, **FIST Projects (LEVEL- II),** Department of AGL, 2014-2016.
- **Faculty Co-In charge Structural Mapping Training** at Ghatshila and Galudih area, M.Sc.Tech (Applied Geology), ISM, Dhanbad , 2015-16.

- **Faculty Co-In charge Structural Mapping Training** at Rajasthan, M.Sc.Tech (Applied Geology),2013-14, 2014-15, Indian School of Mines Dhanbad.
- **Faulty Co-In Charge**, Summer Training/Internship, ISM, Dhanbad, 2013-14, 2014-15.
- **Observer** for the Guwahati Center for conducting M.Sc./M.Sc. Tech/M.Phil/M.Tech/JRF Entrance Examination ,2014-15.
- **Registration committee, BASANT,** ISM, Dhanbad, 2014.
- **Teacher In-charge:** Laboratories of Geomorphology, Photogeology, Remote sensing and GIS lab, (Applied Geology), ISM, Dhanbad, 2013.
- **Faculty Co- In charge**: Integrated M.Sc.Tech (Applied Geology), ISM, Dhanbad, 2013.
- Involved in **First year admissions** (Applied Geology), ISM, Dhanbad, 2013-14, 2014-15.
- Evaluation committee **member**, Summer Training/Internship, ISM, Dhanbad, 2013.
- **Students seminar In-charge (other than M.Tech),** (Applied Geology), ISM, Dhanbad, 2013.
- **Exam coordinator,** Department of Earth Science, Assam University, 2012-13.
- **Student advisor**, Department of Earth Science, Assam University, 2011.

EXTRA-CURRICULAR ACTIVITIES:

- **Industry-Academia Workshop** on Recent Trends in Petroleum Exploration Technology Organized by ONGC Academy, Kolkata, 10/02/14 - 14/02/14.
- **Micro-Observer** for Lok Sava Election, 2014.
- **Orientation programme,** Conducted by UGC, University of Burdwan, 2013.
- **Directorate of Technical Education,** Involved in First year engineering admissions, Mumbai University, 2010.
- **Secretary,** CAFET-INNOVA Technical Society, Maharashtra State Chapter, 2008.
- **Event Coordinator,** ERSA council, Department of Earth Sciences, IIT Bombay, 2005.
- **Coordinator**, ERSA council, Department of Earth Sciences, IIT Bombay, 2004.

INVITED TALKS:

- **Keynote Lectures** (18/01/24 - 20/01/24) on Application of numerical simulation techniques for stability analysis of a jointed rock slope in the Himalayan region of India, International Conference (ICGEID-2024), IIT Patna, 2024.
- **Invited Lectures** (03/12/23 - 07/12/23) on Numerical Analysis of a Jointed Rock Slope in the Himalayan Region of India – a Comparative Study Between Continuum and Discontinuum Approaches, 1st SLRMES International Conference, Colombo, Sri Lanka (2023).
- **Invited Lectures** (03/07/19 & 10/07/19) on Geological and Geotechnical Site Characterization, (For Tata Steel Executives), IIT (ISM) Dhanbad (2019).
- **Invited Lectures** (06/09/18 & 28/09/18) on Rock Mechanics in Hard Rock Mining (For HZL Executives), IIT (ISM) Dhanbad (2018).
- **Invited Lectures** (24/05/17) on Demonstration of Measurement of Rheological Properties, IIT (ISM) Dhanbad (2017).
- **Invited Lectures** (19/04/16) on Earthquake Hazard Awareness for Real Estate Technical Personnel, ISM Dhanbad (2016).
- **Invited Lectures** (09/01/14 & 20/01/14) on Rock Mechanics in Hard Rock Mining (For HZL Executives), ISM Dhanbad (2014).

OUTREACH PROGRAMMES:

- Three days **EDP training programme** on "Advanced practices for geo-engineering challenges for Hydro Power Project Development", (**Coordinator**), IIT(ISM) Dhanbad, from 23.10.2024 to 25.10.2024. (Rs: 9.4 Lakh).
- Two days **National Workshop** on "Advanced Geological and Geophysical techniques for Landslide Hazard Assessment", (**Coordinator**), DST SERB, from 19.02.2024 to 20.02.2024. (Rs: 3.5 Lakh)
- Five days **EDP training programme** on "Advanced practices for geo-engineering challenges: An integrated geological and geophysical approach" (**Co-coordinator**), IIT(ISM) Dhanbad, from 10.07.2023 to 14.07.2023. (Rs: 7.08 Lakh)
- **Faculty Mobility Program** (FMP) in ECL opencast mines, Asansol, from 18.07.2022 to 22.07.2022.
- **Four days training programme** on "Application for Numerical Simulation for Slope stability Risk Mitigation and Management" (**Faculty Coordinator**), IIT(ISM) Dhanbad 2018., (Rs: 4.50 Lakh).
- **Three days training cum field workshop** on "Numerical Simulation of Landslide Studies" (**Co-Coordinator**), DST (NRDMS), 2016. (Rs: 3.65 Lakh).

CONSULTANCY WORK:

- Scientific Slope stability study of Filled Ash in Mines Void of Bharatpur South (OCP) Mahanadi Coalfields Ltd., Talcher for NALCO Ltd., (**PI**), MS NALCO, Angul, 3 Months. **(Rs: 14.92 Lakh)**, Consultancy No: CONS/7220/23-24.
- Scientific Study for carrying out analysis, modelling and mitigation methods for slope instabilities in Mohonpur Coal Mines of Salanpur Area, ECL", (**PI**), Eastern Coalfields Limited, 24 Months. **(Rs: 3.99 Lakh)**, Consultancy No: CONS/7285/2024-25.

DECLARATION:

I hereby declare that the above informations are correct to the best of my knowledge.

Last updated: 07.02.25 **(Kripamoy Sarkar)**