Curriculum Vitae

Prof. (Dr.) Bhabani Prasad Mukhopadhyay

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ResearchGate: https://www.researchgate.net/profile/Prof_Bhabani_Mukhopadhyay

Scopus: https://id.elsevier.com/settings/redirect?code=gEqPhwqDDJaDNufZuoEwSBHwI4fy4sQ2fEyHZaIr

Academic Qualification: Ph.D. in Science (Geology).

Present Designation: Professor (From 2008), Department of Earth Sciences, IIEST Shibpur, India.

Teaching Experience: 34 years.

Research Experience: 37 years.

Areas of Interest: Sedimentology and Basin Tectonics, Hydrogeology, Fluvial Geomorphology, Environmental Geology, Natural Hazards and Disaster, Sustainable Development.

Sponsored Projects (Completed)

1. Facies Analysis and Depositional Milieu of the Chandarpur Group of the Proterozoic Chhattisgarh Supergroup and its significance in basinal evolution, Sponsored by UGC (2007 – 2009).
   - Principal Investigator
2. Decision Support System for Urban Planning in Landslide Prone Zones in Darjeeling Hills, Sponsored by AICTE (2008-2010).
   - Co-Principal Investigator

3. PIRE: Life on a Tectonically Active Delta- Convergence of Earth-Science and Geohazard Research in Bangladesh with Education and Capacity Building, Sponsored by National Science Foundation (NSF), USA (2010).

   - One of the Principal Investigators

4. Sedimentation and Paleogeographic model for the Late Proterozoic sequences of the Shimla area and their sub-surface equivalents in the Himalayan foothills, sponsored by Oil and Natural Gas Corporation Limited (ONGC) (2010-2014).

   - Principal Investigator

5. Geohydrological Investigation of water resources of Howrah District to address the problematic Decentralized planning of drinking water, Sponsored by Department of Planning and Development, Govt. of West Bengal (2010-2013).

   - Principal Investigator

6. Study of Sedimentation pattern and facies development in relation to Proterozoic extentional tectonics and crustal rifting in the Alwar basin, North Delhi fold Belt, Rajasthan, Sponsored by Department of Science and Technology (DST), Govt. of India (2011-2014).

   - **Principal Investigator**

Sponsored Projects (Ongoing)

1. Detailed Hydrogeological study to assess the sustainability of water sources especially during the lean season for 2 X 500 MW extension project at Sagardighi Thermal Power Project, District Murshidabad, West Bengal, India, Sponsored by West Bengal Power Development Corporation Limited (WBPDCL), Govt. of West Bengal.

   - Principal Investigator

2. Hydrogeological impact assessment on account of the ash pond due to storage of ash slurry in the ash pond and mitigation measures to be taken for avoiding any possible pollution on account of the same on water quality in that area at Sagardighi Thermal Power Plant, West Bengal, India, Sponsored by West Bengal Power Development Corporation Limited (WBPDCL), Govt. of West Bengal.

   - **Principal Investigator**

Journal Publications

1. Mitra, R., **Mukhopadhyay, B.P.,** Barua,S., Mitra,A., Chowdhury,P.,(October, 2025): An integrated water resource conservation technique in a semi-arid region using MCDM method with insights from Kalahandi district, Odisha, India; Discover Geoscience (2025) 3: 165: 1-24 Doi: 10.1007/s44288-025-00282-8.
2. Roy, R., **Mukhopadhyay, B.P**., S.Chaudhuri (July,2025): Morphological analysis and stability assessment of upstream terraces: a case study from Teesta river, covering parts of Sikkim and

Darjeeling district of West Bengal, India ; Environmental Earth Sciences 84(16) Doi: 10.1007/s12665-025-12464-1.

3. Bera, A, **Mukhopadhyay, B.P.** (May 2023); Identification of suitable sites for surface rainwater harvesting in the drought prone Kumari River basin, India in the context of irrigation water management; Journal of Hydrology 621(11), Doi: 10.1016/j.jhydrol.2023.129655.
4. Chowdhury, P, **Mukhopadhyay, B.P**., Nayak, S, Bera, A (September 2022); Hydro-chemical characterization of groundwater and evaluation of health risk assessment for fluoride contamination areas in the eastern blocks of Purulia district, India; Environment Development and Sustainability 24:11320–11347; Doi: 10.1007/s10668-021-01911-1.
5. Bera, A, **Mukhopadhyay, B.P.**, Das, S (August 2022); Groundwater vulnerability and contamination risk mapping of semi-arid Totko river basin, India using GIS-based DRASTIC model and AHP techniques; Chemosphere 307(7); Doi: 10.1016/j.chemosphere.2022.135831.
6. Chowdhury, P., **Mukhopadhyay. B. P**., Bera, A.;(January, 2022): Hadrochemical assessment of groundwater suitability for irrigation in the north-eastern blocks of Purulia district, India using GIS and AHP techniques. Physics and Chemistry of the Earth. 126 (3) 1-17, Doi: 10.1016/j.pce.2022.103108.
7. Wadadar, S., & **Mukhopadhyay, B. P**. ;(April, 2022) GIS-based landslide susceptibility zonation and comparative analysis using analytical hierarchy process and conventional weighting-based multivariate statistical: methods in the Lachung River Basin, North Sikkim. Natural Hazards, 113(2), 1199-1236, 21, 3.7, doi: 10.1007/s11069-022-05344-5.
8. **Mukhopadhyay, B. P.**, Chakraborty, A., Bera, A., Saha, R. (February 2022): Suitability assessment of groundwater quality for irrigational use in Sagardighi block, Murshidabad district, West Bengal, Applied Water Science. 12, 1-17, Doi: 10.1007/s13201-021-01565-4.
9. Barua, S., **Mukhopadhyay, B. P**., & Bera, A. (2021). Integrated assessment of groundwater potential zone under agricultural dominated areas in the western part of Dakshin Dinajpur district, West Bengal, India. Arabian Journal of Geosciences, 14, 1042. https://doi.org/10.1007/s12517-021-07312-y.
10. Barua, S., **Mukhopadhyay, B.P.** & Bera, A. (2021). Hydrochemical assessment of groundwater for irrigation suitability in the alluvial aquifers of Dakshin Dinajpur district, West Bengal, India. Environmental Earth Sciences 80, 514 https://doi.org/10.1007/s12665-021-09832-y.
11. Bera, A., **Mukhopadhyay, B. P**., Chowdhury, P., Ghosh, A., & Biswas, S. (2021). Groundwater vulnerability assessment using GIS-based DRASTIC model in Nangasai River Basin, India with special emphasis on agricultural contamination. Ecotoxicology and Environmental Safety, 214, 112085. https://doi.org/10.1016/j.ecoenv.2021.112085.
12. **Mukhopadhyay, B.P.**, Barua, S, Bera, A, Mitra, A.K, (2020); Study on the quality of groundwater and its impact on human health: A case study from Murshidabad District, West Bengal, India; Journal of the Geological Society of India 96(6):597–602, Doi: 10.1007/s12594-020-1608-8.

13. Bera, A., **Mukhopadhyay, B. P.**, Das, D., (March,2019); Landslide Hazard Zonation Mapping using multiple criteria analysis with the help of GIS techniques: a case study from Eastern Himalayas, Namchi, South Sikkim; Natural Hazards Doi: 10.1007/s11069-019-03580-w.
14. **Mukhopadhyay, B. P**., Roy, S., Chaudhuri, S., Mitra, S., (March,2012): Influence of Geological Parameters on Landslide Vulnerability Zonation of Darjeeling Town, in Eastern Himalayas; Asian Journal of Environment and Disaster Management. 04(02):145.
15. Biswas, A. and **Mukhopadhyay, B. P**., (2011). Signature of a Paleogene Submarine-fan from the Jenam Formation, Barail Group, Assam-Arakan Orogen, Northeastern India. Journal of Geological Society of India, vol.78 (December Issue).
16. **Mukhopadhyay, B. P**., Biswas, A. and Kumar, R. (2010). Signature of as part of Proterozoic Fan-Delta system from the Chhaosa Formation, Simla Group, Himachal Pradesh. Gond.Geol.Mag., v.25(2), pp.251-258.
17. Biswas, A. and **Mukhopadhyay, B. P**., (2006). Deep-water clastics from the Laisong Formation, Paleogene Barail Group, Assam-Arakan orogen, India. vol.25, Bangladesh Journal of Geology.
18. Bhattacharya, H.N., **Mukhopadhyay, B. P**., (January,1991): Submarine pyroclastic rocks in the Chitradurga greenstone belt, Karnataka, India. Indian Minerals.

Conference Publications

1. Impact of Climate Change and Land Use on Groundwater Availability: Insights from Birbhum District, West Bengal, India; Rupsa Mitra, **B. P. Mukhopadhyay**, Dr. Ruchira Naskar, HYDRO INTERNATIONAL 2025 – 30th International Conference on Hydraulics, Water Resources, River and Coastal Engineering, National Institute of Technology (NIT) Rourkela, 18 December-20 december, 2025.
2. A geospatial approach for delineating of groundwater potential zone under agriculture dominated area in southern part of Uttar Dinajpur district, West Bengal, India; Anirban Mitra, **B.P. Mukhopadhyay,** Swarnali Barua, 9th international conference organised by National Association of Geographers India (NAGI), Ranchi University, Jharkhand, 7th -10th October,2025.
3. Genesis of Abandoned Channels and its impact on Agro-economy in Lower Teesta Basin lying in Jalpaiguri district, West Bengal, India ; Rima Roy, **Bhabani Prasad Mukhopadhyay,** Susanta Chowdhury, DOI: 10.13140/RG.2.2.14095.29600, International Seminar on Geography for Development: Economy, Society and Environmental Interactions, Kolkata, January, 2025.
4. An approach for water resource management in the semiarid region: A case study of Kalahandi district, Odisha, India; Rupsa Mitra, **Bhabani Prasad Mukhopadhyay**, Anirban Mitra, Swarnali Barua, Puja Chowdhury, 10th International Ground Water Conference, 2025: Groundwater Vision 2047, National Institute of Hydrology, Roorkee, India, 2025.

5. A hybrid approach using deep learning and hydrological modelling to identify aquifer stress zones in the barakar river basin, Jharkhand; Amit Bera, Sanjit Kumar Pal, **Bhabani Prasad Mukhopadhyay**, 10th International Ground Water Conference: Groundwater Vision 2047, National Institute of Hydrology, Roorkee, India, 2025.

6. Genesis of abandoned channels and its impact on agro-economy in lower teesta basin lying in Jalpaiguri district, West Bengal, India; Rima Roy, **Bhabani Prasad Mukhopadhyay**, Susanta Chaudhuri, International Seminar on Geography for Development: Economy, Society and Environmental Interactions, Presidency University, Kolkata, 2025.

7. Assessment of groundwater quality for irrigational purpose in the drought-prone region of Purulia district of West Bengal; Anish Jana, **Bhabani Prasad Mukhopadhyay**, Puja Chowdhury, 7th Regional Science and Technology Congress 2024-25, Bidhan Chandra Krishi Vishwavidyalaya, Kalyani.

8. Impact of changing scenario of climate and precipitation on alluvial aquifers: a case study from recent alluvial of Dakshin Dinajpur district, West Bengal, India; Swarnali Barua, **Bhabani Prasad Mukhopadhyay**, Puja Chowdhury, ETES-2024 conference, IIT (ISM) Dhanbad, India, 2025

9. An integrated approach for the study of groundwater quality using water-quality index for the drought prone regions of Purulia district, India; Puja Chowdhury, **Bhabani Prasad Mukhopadhyay**, Swarnali Barua, ETES-2024 conference, IIT (ISM) Dhanbad, India, 2025.

10. Optimal Applications of Solar Energy Systems: Comparative Analysis of Ground-Mounted and Rooftop Solar PV Installations in Drought-Prone and Residential Areas of the Indian Subcontinent, 18 (10), Rajkumar Ghosh, **Bhabani Prasad Mukhopadhyay**, International Conference on Renewable and Sustainable Energy, 2024.

11. Shear-Induced Box folds: Anisotropy-Driven Geometry in Chaura Thrust, Himachal Pradesh, Rajkumar Ghosh, **Bhabani Prasad Mukhopadhyay** ISBN: 978-81-979322-2-9, 81, 7th Regional Science and Technology Congress, 2024.

12. Perception of Disaster and its Management in Contemporary World: Conference: **Key Note Lecture** at International Conference in the "9th GoGreen Summit" At: Bali, Indonesia. 29th & 30th December,2023

13. Study on the stability of Kopai downstream in the light of regional geological perspectives and fluvial characteristics, Birbhum district, West Bengal, India, Rima Roy, **Bhabani Prasad Mukhopadhyay,** 6th Regional Science and Technology Congress, Department of Science and Technology and Biotechnology, Govt. of West Bengal,2023.

14. Sedimentation Modelling of the Lower Proterozoic Simla Group, Lesser Himalaya, India, Mukhopadhyay, A., **Mukhopadhyay, B.P.**, Banerjee, T., Thorie, A., Mazumdar, P., Petroleum in India; present and future - 20th and 21st March, Calcutta University, 2015.

15. Sedimentation Modelling as a proxy tool for reconstruction of a Falling Stage System Tract on a Proterozoic Carbonate Ramp: Evidence from Simla Group, Western Lesser Himalaya, India, Biswas, A., **Mukhopadhyay, B.P.**, Banerjee, T., Thorie, A., Mazumdar, P, 19th International Sedimentological Congress, 18th - 22nd August Geneva, Switzerland, 2014.

16. Signature of palaeoseismicity recorded from the rock strata of the Chhaosa Formation, Simla Group, Himachal Himalaya, India, Mazumdar, P., **Mukhopadhyay, B.P.**, Biswas, A., Banerjee, T., Thorie, A, Sedimentation and Stratigraphy & 31st Convention of Indian Association of Sedimentologists, November, 2014.

17. Facies architecture and sequence stratigraphy of a mid-outer ramp carbonate succession: Basantpur Formation, Proterozoic Simla Group, Western Lesser Himalaya, India, Banerjee, T., Biswas, A., **Mukhopadhyay, B.P.**, Thorie, A., Mazumdar, P, Sedimentation and Stratigraphy & 31st Convention of Indian Association of Sedimentologists, November, 2014.

18. Control of microbial mat related structures (MRS) on mixed siliciclastic-carbonate platform from Lower Proterozoic Simla Basin (Basantpur Formation), Lesser Himalaya, Simla district, Himachal Pradesh, India, Thorie, A., Biswas, A., **Mukhopadhyay, B.P.**, Banerjee, T., Mazumdar, P., Sedimentation and Stratigraphy & 31st Convention of Indian Association of Sedimentologists, November, 2014.

19. Signatures of deep marine deposits in the upper part of the Delhi Supergroup, Proterozoic Alwar sub-basin, Rajasthan, **Mukhopadhyay, B.P.**, Biswas, A., Thorie, A., Sedimentation and Tectonics with Special Reference to Energy Resources of North-East India & 30th Convention of Indian Association of Sedimentologists, November, 2013.

20. Siliciclastic-carbonate sedimentation in a storm-tide influenced Proterozoic fan-delta system, Lower Simla Group, Himachal Himalaya, India, **Mukhopadhyay, B.P.**, Biswas, A., Banerjee, T., Sedimentation and Tectonics with Special Reference to Energy Resources of North-East India & 30th Convention of Indian Association of Sedimentologists, November, 2013.

21. Signature of a Proterozoic fan-delta system, Middle-Upper Simla basin, Himachal Pradesh, India, Biswas, A., **Mukhopadhyay, B.P.**, Mazumdar, P., Sedimentation and Tectonics with Special Reference to Energy Resources of North-East India & 30th Convention of Indian Association of Sedimentologists, November, 2013.

22. Tectonic Evolution of Late Proterozoic Basins of Lesser Himalaya, H.P, Kumar, R., **Mukhopadhyay, B.P.**, and Biswas, A., National Seminar, Benaras Hindu University, Varanasi, 8th - 9th April, 2011.

23. A review of Kosi alluvial fan, Bihar, India- Hydrogeologic structures, hydrological circumstances, water circulations and future prospects of water resources, Ed. By Secretariat of Research Group on Hydro-environment around alluvial fans, **Mukhopadhyay, B.P.**, Das, K. & Biswas, A. 2008., pp.415-423, XXXVI International Association of Hydrologists Congress, 27th-31st October, 2008.

24. A tectono-sedimentary model of the Proterozoic Simla Group, Lesser Himalayas and its bearing on potentiality as a hydrocarbon reservoir, Biswas, A., Kumar, R. & **Mukhopadhyay, B.P.**, GEOINDIA-Extended Abstracts volume, Geo India Conference & Exhibition, 16th - 19th September, 2008.

25. A foreland depositional environment as evidenced from the Mesoproterozoic sedimentary succession in Chhattisgarh basin, Central India craton, India, **Mukhopadhyay, B.P.**, Kumar, R. & Biswas, A., Extended Abstract in National Seminar volume on "Earth Resources, Environment and Earth Sciences for Society" SALEM, National Seminar volume on "Earth Resources, Environment and Earth Sciences for Society" SALEM, 17th - 25th February, 2008.

26. Deep-water sedimentation from Proterozoic Nallamalai Group: Records of Basinal Instability In An Extensional Regime, Biswas, A. and **Mukhopadhyay, B.P.**, Extended Abstract, International Conference on Precambrian Sedimentation and Tectonics and Second GPSS meeting, IIT Bombay, 10th - 12th December, 2007.

27. Facies analysis of Cumbum volcaniclastics from extensional Proterozoic Cuddapah Supergroup, Peninsular India, **Mukhopadhyay, B.P.**, and Biswas, A., Extended Abstract, International Conference on Precambrian Sedimentation and Tectonics and Second GPSS meeting, IIT Bombay, 10th - 12th December, 2007.

28. Nature of sedimentation of the Proterozoic Gulcheru Formation, Cuddapah Supergroup, India, Biswas, A., and **Mukhopadhyay, B.P.**, Extended Abstract, International Seminar on Crustal evolution, sedimentary processes and metallogeny, Dharwad, Karnataka, 2007.

29. Facies Analysis of the Pulivendla Formation, Chitravati Group, Proterozoic Cuddapah Supergroup, India, **Mukhopadhyay, B.P.**, and Biswas, A., Extended Abstract, International Seminar on Crustal evolution, sedimentary processes and metallogeny, Dharwad, Karnataka, 2007.

Recent Book Chapter Publications

1. Bera, A., **Mukhopadhyay, B. P**., Biswas, S. (2021). Aquifer Vulnerability Assessment of Chaka River Basin, Purulia, India Using GIS-Based DRASTIC Model. In: Adhikary P.P., Shit P.K., Santra P., Bhunia G.S., Tiwari A.K., Chaudhary B.S. (eds) Geostatistics and Geospatial Technologies for

Groundwater Resources in India. Springer Hydrogeology. Springer, Cham. pp. 239-259. https://doi.org/10.1007/978-3-030-62397-5_12.

2. **Mukhopadhyay B.P.**, Chakraborty A, Roy R, Bandyopadhyay A. (2024). Assessment of the Changing Landscape and Overall Aquifer Condition Due to Saline Water Intrusion: A Review. Hydrology and Urban water Supply. Springer, pp.199-213.
3. Barua S., **Mukhopadhyay B. P.** (2025). Spatio-temporal Variation of Depth to Water Level Due to Conventional Agricultural Practices and Its Consequences on Hydrogeological Condition in an Alluvial Terrain: A Case Study from Dakshin Dinajpur District, West Bengal, India. Remote Sensing, GIS and Modelling for Water Resource Management, Vol.2. Springer Water (SPWA), pp. 387-407. https://doi.org/10.1007/978-3-031-99497-5_18

Keynote Speaker

Keynote Speaker at International Conference in "9th Go-Green Summit" organised by BioLEAGUES on 29th & 30th December, 2023 (Virtual Conference).

Editorial Board Member

- **Agro Resilience**, **Academic** Research Services LLC.

Ph.D. Supervision (Awarded)

1. **Dr. Susanta Chowdhury** (Registration No.; Ph.D./R/2008/287); Study on bridge pier scour in clay-sand mixed cohesive beds – An experimental approach, awarded on 2.09.2010.
2. **Dr. Prabhas Ranjan Char** (Registration No.; Ph.D./R/2013/0044); Development of a methodology to predict the dust concentration in surface coal mines, awarded on 13.02.2017.
3. **Dr. Amit Bera** (Registration No.; Ph.D./R/2018/0111); Study on the water resources and feasibility of rainwater harvesting for agricultural purposes in Kumari River basin, West Bengal and Jharkhand, India, awarded on 16.02.2023.
4. **Dr. Swarnali Barua** (Registration No.; Ph.D./R/2018/0028); Study on the quality of alluvial groundwater for irrigation and drinking purposes in agricultural belt, Dakshin Dinajpur, West Bengal, India, awarded on 31.07.2023.
5. **Dr. Puja Chowdhury** (Registration No.; Ph.D./R/2018/0112); Study on the suitability of groundwater for drinking and irrigation purposes in the granite-gneissic terrain of Eastern blocks of Purulia District, West Bengal, India, awarded on 12.02.2024.
6. **Dr. Siperna Nayak** (Regn No. PhD/R/2018/0113); Study on the Qualitative Assessment of Ground Water along with Quantitative Aspect for Agricultural and Drinking purposes in the Granite Gneissic Terrain of Western Purulia, West Bengal, India, awarded on 16.05.2025

Books (Published in vernacular medium for Popularisation of Science)

1. **Atasbazi theke Rocket (From Fireworks to Rocket)**,2016: Published by Akshar Prakashan, Kolkata. Pages: 143. ISBN: 978-93-82599-14-2.

2 **Ek Prakriti Bignanir Atmakatha : Charles Darwin (Autobiography of A Naturalist: Charles Darwin)**, 2014 , Published by Patralekha, Kolkata. Pages: 143. ISBN : 978-93-81858-68-4.

3. **Prakritik Biparjay (Natural Disaster),** 2003: Published by Jnan Bichitra, Agartala. Pages: 208. ***The Book has been awarded " Satyendra Puroskar" by Department of Science and Technology, Govt. of West Bengal as Best Popular Science Book of the Year, 2005.***

4. **Sera Bijnanir Sera Abiskar (Great Invention of Great Scientists),** 2004. Published by Nirmal Book Agency, Kolkata. Pages: 176.

5. **Sera Bijnanir Sera Abiskar- Dwitiyo Khando (Great Invention of Great Scientists- 2nd Part), 2014.** Published by Nirmal Book Agency, Kolkata. Pages: 176. ISBN: 978-81-7326-100-8.

6. **Chhay Bijnani (Six Scientists**),2002 published by Paschim Banga Vigyan Mancha, Kolkata. Pages: 120.

Books (Published in vernacular medium for Newly Literate People on Literacy Programme of Govt. of West Bengal)

1. **Sonar Cheye Dami** (**On Awareness of Water Resources**),2002 Published by Akshar Prakashan, Kolkata. Pages: 20
2. **Akajer Nanan Jinis** (**On Awareness of Waste Management**),2002 Published by Akshar Prakashan,Kolkata. Pages: 20
3. **Paniya Jaler Nanan Katha** (**On Awareness of Drinking Water**), 2003. Published by Shishuswapna Prakashan, Kolkata. Pages: 20
4. **Albert Einstein (Life of Albert Einstein**),2003. Published by Patralekha, Kolkata. Pages: 32

Membership of Professional Bodies

1. **Indian Association of Sedimentologists**: Life Member (LM-167)
2. **Indian Geological Congress, Roorkee** : Life Member (LM-678), **Ex-Council Member.**
3. **Geological, Mining, Metallurgical Society of India**: Life Member.
4. **GIS Academic Council of India, Esri India Technologies Private Limited** : Invited Member

Awards and Achievements

1. **University Gold Medal**, The University of Burdwan, 1986.
2. **Satyendra Puroskar** by Department of Science and Technology, Govt. of West Bengal for best Popular Science Book Writing in Bengali in the year 2005.
3. **Fellow, Geological Society of India, Bangalore** (F-2760).

Date: 14.01.2026