

DR. AJOY KUMAR BHAUMIK
Professor, Department of Applied Geology & Ex-Head, Central Research Facility
IIT(ISM) Campus, Dhanbad, Jharkhand – 826 004;
Phone: 0326-223-5684 (office); 9470194675 (Mobile)
Email: ajoy@iitism.ac.in (official); ajoyism@gmail.com (personal)

Research and Professional Interest:

Unicellular eukaryotic hard test-bearing marine tiny foraminifera bears ample information regarding the depositional environment, evolution, extinction, tectonism, earth's history, etc. I love finding them in sediments, seeing them under a microscope, measuring their different parameters, and revealing hidden information.

Expertise: Micropaleontology, Functional morphology, Paleoceanography, Paleoclimatology, Biostratigraphy, Hydrocarbon Exploration

EXPERIENCE

12.7.2024 to till date
PROFESSOR, IIT(ISM) DHANBAD
RESEARCH, TEACHING (UNDERGRADUATE AND POSTGRADUATE COURSES)

31.5.2008 – 11.7.2024
ASSOCIATE PROFESSOR, IIT(ISM) DHANBAD
RESEARCH, TEACHING (UNDERGRADUATE AND POSTGRADUATE COURSES)

29.2.2008 – 30.5.2016
ASSISTANT PROFESSOR, IIT(ISM) DHANBAD
RESEARCH, TEACHING (UNDERGRADUATE AND POSTGRADUATE COURSES)

29.6.1999 – 28.2.2008
JUNIOR TECHNICAL SUPERINTENDENT, IIT KHARAGPUR
ASSISTED IN PRACTICAL CLASSES AND LOOKED AFTER ANALYTICAL INSTRUMENTS

01.11.1997 – 30.4.1999
MINING GEOLOGISTS, G. R. GRAPHITE INDUSTRIES, SAMBALPUR, ODHISA
EXPLORATION & MAPPING

EDUCATION

AUGUST 2007
PH. D, IIT KHARAGPUR, Micropaleontology (Geology). Completed coursework on Applied Micropaleontology, Geophysical Exploration, Geostatistics, and English for science & society. Supervisor: Prof. Anil Kumar Gupta.

APRIL 1997
M SC, University Colleges of Science, Technology & Agriculture University of Calcutta, Geology. M. Sc thesis supervisor: Prof. Tapan Kumar Ghosh.

MARCH 1995
B SC, Asutosh College, University of Calcutta, Geology (Honours), Pass subjects: Mathematics and Chemistry.

AWARDS & HONOURS

- Expert of Paleontology by Union Public Service Commission (UPSC), New Delhi.
- Head, Central Research Facility
- Executive Council Member, 2020 to 2022, Paleontological Society of India, Lucknow
- Research Advisory Committee Member, 2019 to 2022, Wadia Institute of Himalayan Geology, Dehradun
- Research Advisory Committee Member, 2017 to 2020, Department of Geology, Presidency University, Kolkata
- Jagdep Singh Memorial Best Paper Award from the Geological Society of India for the year 2017 for the research article "Seismic attenuation for characterization of gas hydrate reservoir in Krishna-Godavari basin, eastern Indian margin. Journal of the Geological Society of India, 90, 261-266" by Jyothi, V., Sain, K., Pandey, V., and Bhaumik. A. K.
- Elected as a Fellow of the Geological Society of India, Bangalore, India in 2014
- Prof. S. K. Singh Gold Medal Award, 2013, Paleontological Society of India, Lucknow
- 2nd best paper presentation award, 2011, World Petrocoal Congress, New Delhi
- Received full fellowship from IMAGES-PAGES, Germany, for attending the 9th International Conference on Paleoceanography (ICP-IX) held in 2007, Shanghai, China
- Received full fellowship from IMAGES-PAGES, Germany, for attending the 8th International Conference on Paleoceanography (ICP-IX) held in 2004, Biarritz, France.

MEMBERSHIP

- Life Fellow of the Paleontological Society of India, Lucknow
- Life Member of the Indian Geological Congress, Roorkee
- Life Member of the Geological Society of India, Bangalore
- Life Member of The Indian Science Congress Association, Kolkata
- Member of The Micropalaeontology Society, UK

RESEARCH ACTIVITIES

Research Projects:

Completed

- Variations of Paleoproductivity related to Northern Hemisphere Glaciation and Mid Pleistocene Transition: Planktic foraminiferal and study from NW Atlantic. Minor Research Project, IIT(ISM), Dhanbad. Sanction date: 04.02.2009 (2 years tenure)
- Distribution and carbon isotopic variations of benthic foraminifera from gas hydrate-rich Peru Offshore. DST. Sanction date: 19.8.2011 (3 years tenure).
- Characterization, quantification, and genesis of gas hydrates in Krishna-Godavari Basin, Bay of Bengal, using benthic foraminiferal, geochemical, and geophysical studies. MoES. Sanction date: 14.01.2025 (3 years tenure).
- Synergetic Training Program Utilizing the Scientific and Technological Infrastructure (STUTI), DST. Sanction date: 09.02.20222 (1 year tenure).

Ongoing

- To strengthen the research facilities in the Department of Applied Geology, DST-FIST. Sanction date: 24.9.2021 (5 years tenure).
- Foraminiferal, geochemical and sedimentological investigations on Holocene sediments of the Bay of Bengal: Unveiling climatic variations, oxygen-deficient environments, and seepage effects. DST-CRG. Sanction date: 19.02.2024 (3 years tenure).

Industry/Consultancy projects/Training program conducted:

- 'Hands-on Training on Scanning Electron Microscopy' from 5 to 7 September 2025 at CRF in Association with Zeiss, Project No. ORAC-0180.
- "Hands-on Training on Raman Spectroscopy" from 4 to 6 July 2025 at CRF" from 4th to 6th July 2025, Project No. ORAC-0180.
- "Frontiers of Earth Science" from 12th to 18th July 2022 in Jadavpur University [Project No. DST/RND/STUTI/2021/13(C)].
- "Uses of Sophisticated Instruments in Earth Sciences" from 25th to 31st March 2022 in IIT(ISM) [Project No. DST/RND/STUTI/2021/13(C)].
- Student awareness program during 22nd to 28th February 2022 in IIT(ISM). [Project No. DST/RND/STUTI/2021/13(C)]

- Testing of CBM Core/Non-Core samples by Petropath Fluids (India) Pvt. Ltd. (Project No. TEST/6095/ 2021-22).
- Two-Week Training Programme on 'Petroleum Exploration' for Officials of the Ministry of Mines, Government of Afghanistan, from 28th April to 12th May 2013, Consultancy No. Cons/2123/2013-14 Funding agency: Ministry of External Affairs, Govt. of India.
- Characterization of phosphate fines and associated test work for flowsheet development purposes. Consultancy No. Cons/2580/14-15. Funding agency: Hira Group, Spain.

PhD supervised: 08; Supervising: 05

Dissertation Supervisied: 80 - [Master's thesis supervision: 2-Years M. Sc: **02**; 3-Years M. Sc. Tech: **48**; 5-Years Intergrated M. Sc./M. Tech: **13**; 2 Years M. Tech (Petroleum Exploration): **17**]

Publications:

Peer-Reviewed journals

1. Mukherjee., S., Bhaumik, A. K., Chakrabarty, P., 2026. Overview of Stratigraphy and Mapping of Shale Bodies. Accepted in Reservoir Science (RS-2026-712719).
2. Bar, S., Kamila, B., Pal, P. P., Bhaumik, A. K., Ghorai, S. K., 2026. Multi-Metal Competitive Adsorption on Plastic Polymers: Evidence from Single and Binary Metal Exposure Experiments. Chemosphere, 405, 144952. doi.org/10.1016/j.chemosphere.2026.144952
3. Pal, S., Bhaumik, A. K., Tikadar, S., Mahato, S. K., Pal, 2026. Coprolites and Neodiapsida remains from the Early Triassic Panchet Formation, India. Historical Biology, 1–27. https://doi.org/10.1080/08912963.2026.2654073
4. Chakraborty, P., Sen, P., Peketi, A., Mishra, S., Chakraborty, P., Kumari, J., Bhaumik, A. K., and Hazra, B., 2026. Source-specific health risks of metallic elements in road dust from coal mining affected urban areas using an integrated PMF–HHR–Monte Carlo framework. Environmental Geochemistry and Health, 48:70, https://doi.org/10.1007/s10653-025-02960-5.
5. Patrick, N. M., Vats, N., Bhaumik, A. K., Mohanty, S., Chattopadhyay, K., 2026. Plio-Pleistocene Sediment Grain Size Variability in the Western Bay of Bengal: Evidences of Indian Summer Monsoon Intensification. Marine Geology, 491, 107682. https://doi.org/10.1016/j.margeo.2025.107682
6. Vats, N., Bhaumik, A. K., Das, M., Mohanty, S., and Singh, R. K., 2025. Correspondence of ENSO-like processes to the thermocline planktic foraminifera in the East China Sea over the last 400 ka. Journal of the Palaeontological Society of India, 70(2), 384-393. DOI: 10.1177/05529360251405609.
7. Chaudhuri, S., Bose, K., Chattopadhyay, K., Das, S. S., Bhaumik, A. K., 2025.Biostratigraphy, mineralogy, and paleoenvironmental analysis of the Miocene Gaj Formation from the Dwarka Basin, western India. Geological Magazine, 162(e49): 1–24. https://doi.org/10.1017/S0016756825100356

8. Roy, L., Ghosh, A. K., Bhaumik, A. K., 2025. High resolution Miocene to Pleistocene calcareous nannofossil biostratigraphy from northeast Indian Ocean: A comprehensive analysis on biohorizons, global correlation, palaeogeography, palaeoecology and sedimentation. Deep-Sea Research Part II, 223, 105517. https://doi.org/10.1016/j.dsr2.2025.105517.
9. Srivastava, S., Vikash, V., Pal, S. K., Kumar, R., Kumar, S., Mondal, S., Bhaumik, A. K., 2025. Integrated Geophysical Approach for Bauxite Exploration in Bimarla Mine, Lohardaga, Jharkhand, India. Mining, Metallurgy & Exploration. https://doi.org/10.1007/s42461-025-01302-4.
10. Mohanty, S., Chaudhuri, S., Chattopadhyay, K., Patrick, N. M., Vats, N., and Bhaumik, A. K., 2025. Influence of Monsoon Variability on Hydrographic and Productivity Dynamics in the Western Bay of Bengal during the Late Holocene: A Planktic Foraminiferal Perspective. Palaeogeaography, Palaeoclimatology, Palaeoecology. 670, 112971. https://doi.org/10.1016/j.palaeo.2025.112971
11. Roy, L., Ghosh, A. K., and Bhaumik, A. K., 2024. Tortonian–Messinian radiolarian events from Northeast Indian Ocean – diversity analysis, palaeogeographic distribution and depositional environment. Journal of Earth System Science. 134:32, 1-25; https://doi.org/10.1007/s12040-024-02481-2.
12. Bhaumik, A. K., Kumar, S., Chaudhuri, S., Mohanty, S., Mukherjee, M. K., Sain, K., Gupta, A. K., and Kumar, P., 2024. Accumulation of Gas Hydrates in Mass Transport Deposit at Krishna-Godavari Basin, Bay of Bengal: Foraminiferal, Sedimentological, and Seismic Evidence. AAPG Bulletin, 108(9), 1687-1703. doi.org/10.1306/03222423052.
13. Chaudhuri et al., 2024. Analysis of the spectral contrast between fossil-bearing and fossil-depleted limestone- Implication in delineating fossil-bearing limestone using reflectance and emittance spectroscopy data. Journal of the Geological Society of India, 100(7), 971-980. doi.org/10.17491/jgsi/2024/173940.
14. Roy, Lopamudra and Ghosh, Amit K and Bhaumik, Ajoy Kumar, 2024. Late Miocene radiolarian data from the sediment core of NGHP–01–17A in the Andaman and Nicobar Basin, NE Indian Ocean. Available at SSRN: https://ssrn.com/abstract=4807267 or http://dx.doi.org/10.2139/ssrn.4807267.
15. Bhaumik et al., 2024. Biostratigraphy and sedimentation rate estimation of Quaternary sediments of the Krishna-Godavari Basin, Bay of Bengal: Evidence from NGHP-01 Holes 10D, 5C and 3B. Micropaleontology, 70(3), 239-252. http://doi.org/10.47894/mpal.70.3.03.
16. Roy et al., 2023. Tortonian silicoflagellates from the offshore of northeast Indian Ocean. Deep-Sea Research Part-II, 210, 105297. doi.org/10.1016/j.dsr2.2023.105297.
17. Dey et al., 2023. Rhodolith-forming coralline red algae in the CaCO3 biofactory – A case study from the Serravallian of tropical northeastern Indian Ocean. Comptes Rendus Palevol, 22(26), 541-567. doi.org/10.5852/cr-palevol2023v22a26.
18. Mohanty et al., 2023. Late Holocene Paleoceanographic and Climatic Changes and their Impact on Indian Socio-Economic Condition: Benthic Foraminiferal

Evidence from the Bay of Bengal. The Holocene, 33(7) 791–806. doi.org/10.1177/09596836231163505.

19. Maiti et al., 2023. Experimental and kinetic modelling studies on the gas hydrate inhibition effect of PVP K-90 in drilling fluids. Gas Science and Engineering, 115, 205015. doi.org/10.1016/j.jgsce.2023.205015.
20. Chaudhuri et al., 2022. Multiproxy analysis constraining climatic control over the Cenozoic depositional history of Kachchh, Western India. Geological Journal, 57(9), 1–33. doi.org/10.1002/gj.4511.
21. Maiti et al., 2022. Inhibition effect of synthesized Ionic liquids on hydrate formation: A kinetic and thermodynamic study. Energy & Fuels, 36 (18), 10832-10844. doi: 10.1021/acs.energyfuels.2c01921.
22. Singh et al., 2022. Paleomonsoonal shifts during ~13700 to 3100 yr BP in the central Ganga Basin, India with a severe arid phase at~4.2 ka. Quaternary International, 629, 65-73. doi.org/10.1016/j.quaint.2021.01.015.
23. Dey et al., 2022. Burdigalian–Serravallian radiolarians from Havelock Island, Northeast Indian Ocean and their palaeoecological significance. Micropaleontology, 68(4), 345-374. doi.org/10.47894/mpal.68.4.01.
24. Maiti et al., 2022. Geological characterization of natural gas hydrate bearing sediments and their influence on Hydrate formation and dissociation. Journal of Natural Gas Science and Engineering, 100, 104491, doi.org/10.1016/j.jngse.2022.104491.
25. Roy et al., 2022. Diatom assemblages from the Tortonian of northeast Indian Ocean (NGHP-01-17A): its correlation with significant radiolarian and calcareous nannofossil events. Micropaleontology, 68(1), 51-84. doi.org/10.47894/mpal.68.1.03.
26. Maiti et al., 2021. Formulation and characterization of water-based drilling fluids for gas hydrate reservoirs with efficient inhibition properties. Journal of Dispersion Science and Technology, 42(3), 338-351. doi.org/10.1080/01932691.2019.1680380.
27. Srivastava et al., 2021. Biostratigraphy and sea-level fluctuations during the Jurassic of Kachchh region, Gujarat, India. Journal of the Palaeontological Society of India, 66(2), 156-162.
28. Maiti, et al., 2021. Performance of water-based drilling fluids for deep-water and hydrate reservoirs: designing and modeling studies. Petroleum Science, 18(6), 1709-1728. doi.org/10.1016/j.petsci.2021.09.001.
29. Dey et al., 2021. Late Pliocene to early Pleistocene Planktonic foraminifera from Northern Indian Ocean (Andaman and Nicobar Islands): Interpretation on cooling event and ocean upwelling. Journal of Foraminiferal Research, 51(3), 115-138. doi.org/10.2113/gsjfr.51.3.115.
30. Guha et al., 2020. Reflectance spectroscopy-guided broadband spectral derivative approach to detect glauconite-rich zones in fossiliferous limestone, Kachchh region, Gujarat, India. Ore Geology Reviews, 127, 103825, doi.org/10.1016/j.oregeorev.2020.103825.

31. Chaudhuri et al., 2020. Potential Utility of Reflectance Spectroscopy in Understanding the Paleoecology and Depositional History of Different Fossils. Scientific Reports, 10: 16801. doi.org/10.1038/s41598-020-73719-4.

32. Singh et al., 2020. Abrupt shifts in the Indian summer monsoon during the last three millennia. Quaternary International, 558, 59-65. doi.org/10.1016/j.quaint.2020.08.033.

33. Biswas, S., and Bhaumik, A. K., 2020. Timing and cause of the disappearance of some elongated taxa in the Indian Ocean: Study from NGHP Hole 17A. Journal of Earth System Science, 129 (1), 128 (1-10), doi.org/10.1007/s12040-020-01399-9 (012345678).

34. Chowdhury, S., and Bhaumik, A. K., 2019. Palaeoceanographic changes in the Bay of Bengal during the Holocene. Journal of the Paleontological Society of India, 64(1), 61-72 (ISSN 0552-9360).

35. Srivastava et al., 2018. Characterisation of organic carbon in black shales of the Kachchh basin, Gujarat, India. Journal of Earth System Science, 127, (7). doi.org/10.1007/s12040-018-1002-8.

36. Srivastava et al., 2017. Depositional environment of intertrappean and intratrappean beds of the Anjar area in a marine environment: Foraminiferal evidence. Journal of Paleontological Society of India, 62(2), 147-156.

37. Bhaumik et al., 2017. Biostratigraphy and depositional environment of the Miocene limestone bed of Baripada, Mayurbhanj District, Odisha: Foraminiferal, sedimentological and bulk organic geochemical evidences. Journal of Geological Society of India, 90, 437-446. doi.org/10.1007/s12594-017-0737-1.

38. Jyothi et al., 2017. Seismic attenuation for characterization of gas hydrate reservoir in Krishna-Godavari basin, eastern Indian margin. Journal of the Geological Society of India, 90, 261-266. Doi.10.1007/s12040-017-0840-0.

39. Bhaumik et al., 2017. Stable carbon and oxygen isotope study on benthic foraminifera: implication for microhabitat preferences and interspecies correlation. Journal of Earth System Science, 126:72. doi: 10.1007/s12040-017-0840-0.

40. Das et al., 2017. Holocene strengthening of the Oxygen Minimum Zone in the northwestern Arabian Sea linked to changes in intermediate water circulation or Indian monsoon intensity? Palaeogeography, Palaeoclimatology, Palaeoecology, 483, 125-135. doi.org/10.1016/j.palaeo.2016.10.035.

41. Bhaumik et al., 2014. Functional morphology of Melonis barleeanum and Hoeglundina elegans: a proxy for watermass characteristics. Current Science, 106(8), 1133-1140.

42. Bhaumik et al., 2014. Surface and deep-water variability at Blake Ridge, NW Atlantic during the Plio-Pleistocene linked to closing of the Central American Seaway. Paleogeography, Paleoclimatology, paleoecology, 399, 345-351. doi:10.1016/j.palaeo.2014.02.001.

43. Bhaumik et al., 2013. Gas hydrates occurrence, destabilization and potential energy resources: A review based on faunal, geochemical and geophysical investigations with special reference to the Blake Ridge, NW Atlantic. Journal of the Palaeontological Society of India, 58(1), 39-50.

44. Sain et al., 2012. Geo-scientific Investigations of Gas-Hydrates in India. Proceedings of Indian National Science Academy, 78, 503-511.

45. Bhaumik et al. 2011. Stilostomella: Extinction or local disappearance of elongated species? Current Science, 101 (7), 952-958.

46. Mohan et al., 2011. Distribution of deep-sea benthic foraminifera in the Neogene of Blake Ridge, NW Atlantic. Journal of Micropalaeontology, 30, 33-74, doi: 10.1144/0262-821X10-008.

47. Bhaumik, et al., 2011. Blake Outer Ridge: Late Neogene Variability in Paleoceanography and Deep-sea Biota. Paleogeography, Paleoclimatology, paleoecology, 302 (3-4), 435-451, doi: 10.1016/j.palaeo.2011.02.004.

48. Bhaumik et al., 2008. Disappearance of Stilostomella lepidula (Schwager) across the mid-Pleistocene transition and its paleoceanographic implication. Current Science, 94(6), 758-764.

49. Bose et al., 2007. Meteoritic impacts and climatic changes in Pliocene-Pleistocene epoch. Earth, Moon, and Planets, 101, 141-151, doi:10.1007/s11038-007-9190-2.

50. Bhaumik et al., 2007. Paleoceanographic evolution of the northeastern Indian Ocean during the Miocene: evidence from deep-sea benthic foraminifera (DSDP Hole 216A). Indian Journal of Marine Sciences, 36(4), 332-341.

51. Bhaumik, A. K. and Gupta, A. K., 2007. Evidence of methane release from Blake Ridge ODP Hole 997A during the Plio-Pleistocene: Benthic foraminifer fauna and Total Organic Carbon. Current Science, 92(2), 192-199.

52. Bhaumik, A. K. and Gupta, A. K., 2005. Deep-sea benthic foraminifera from gas hydrate-rich zone, Blake Ridge, Northwest Atlantic (ODP Hole 997A). Current Science, 88(12), 1969-1973.

53. Das et al., 2002. Significance of Stable Isotopes in paleoclimatology and Paleoceanography – A Review. Indian Journal of Geochemistry, 17, 13-23.

Book Chapters

1. Bose, K., Chaudhuri, S., Chattopadhyay, K., Ghosh, A., Das, S. S., and Bhaumik, A. K., (2025). Miocene gastropod faunal diversity studies and community structure from the Dwarka Basin, Kathiawar Peninsula, western India. In: The Neogene Earth (Eds Ghosh, A. K., Kapur, V. V., Roy, L., Punekar, J., Thakkar. M. G.) Springer (Accepted)

2. Vats, N., Bhaumik, A. K., Patrick, N. M., Chattopadhyay, K., Mohanty, S., and Das, M., (2025). Neogene Paleoceanography and Paleoclimatic Changes in the Indian Ocean: A Foraminiferal Perspective. In: The Neogene Earth (Eds Ghosh, A. K., Kapur, V. V., Roy, L., Punekar, J., Thakkar. M. G.), Springer (Accepted)

3. Bhaumik A. K., and Gupta, A. K., (2011). Occurrence, clues, and importance of natural gas hydrates: Evidence from NW Atlantic. In New Paradigms of Exploration and Sustainable Mineral Development: Vision 2050 (Eds. Varma, O. P., Sarkar, B. C., Varma, A. K., Mukherjee, M. K., Singh, S.). 17th Convention of

Indian Geological Congress and International Conference, ISM, Dhanbad, pp. 493-506.

4. Bhaumik, A. K. and Gupta, A. K. (2011). Biotic evidence of methane seepage in gas hydrate-rich marine settings. World Petrocoal Congress, New Delhi, pp. 1-14.

5. Bhaumik, A. K. and Gupta, A. K. (2010). Foraminiferal (Protozoan) signatures for gas hydrate exploration: A case study from NW Atlantic. *In* Geological and Technological Facets of CBM, Shale Gas, Energy Resources and CO_2 Sequestration (Eds. Varma, A. K., Dubey, R. K., Sarkar, B. C. and Saxena, V. K.), Allied Publishers Pvt. Ltd., New Delhi, pp.116-125.

Conference Abstracts

1. Bhaumik, A. K., Kumar, S., and Chowdhury, S., 2025. Documentation and extension of mid-depth MTD in the K-G basin: Benthic foraminiferal evidence. In: Fossils as Earth's Timekeepers, 29-31 October 2025, CSIR-National Institute of Oceanography, Goa, India.

2. Mohanty, S., and Bhaumik, A. K., 2025. Late Holocene paleoceanographic and climatic changes and their impact on Indian socio-economic condition: Benthic foraminiferal evidence from the Bay of Bengal. In: Fossils as Earth's Timekeepers, 29-31 October 2025, CSIR-National Institute of Oceanography, Goa, India.

3. Chattopadhyay, K., Mohanty S., and Bhaumik, A. K., 2025. Late Holocene Hydrographic Variability in the Western Bay of Bengal: Insights from Planktic Foraminifera. 15th International Conference on Palaeoceanography. 31st August to 5th September 2025, IISC Bengaluru India

4. Patrick, N. M., Vats, N., Mohanty S., Chattopadhyay, K., and Bhaumik, A. K., 2025. Sediment grain size variability in the Bay of Bengal over the last 5 Ma and its linkage with the Indian Summer Monsoon. 15th International Conference on Palaeoceanography. 31st August to 5th September 2025, IISC Bengaluru India

5. Mohanty S., and Bhaumik, A. K., 2025. Late Holocene Hydrographic Variability in the Western Bay of Bengal: Insights from Planktic Foraminifera. 15th International Conference on Palaeoceanography. 31st August to 5th September 2025, IISC Bengaluru India

6. Chattopadhyay, K., Chaudhuri, S., Mohanty, S., Patrick, N. M., Bhaumik, A. K., 2025. Impact of Organic Matter on Grain Size Analysis: A Comparative Experimental Study from the Mahanadi Offshore Basin, Eastern India. Abstract Volume, XV India Colloquium on Micropaleontology and stratigraphy (31 August to 5 September 2025 at IISC Bangaluru).

7. Mohanty, S., and Bhaumik, A.K., 2024. Assessing the hydrographic variability during the late Holocene using planktic foraminifera in the western Bay of Bengal, TROPQUA 2024, NIO GOA, 3-7 November, 2024.

8. Bhaumik, A. K., Kumar S., and Sain, K., 2024. Foraminifera: Clues for MTD and gas hydrate genesis. ICMS 2024/DU/14, pp. 14, in Abstract Volume of 29th Indian Colloquium on Micropaleontology and Stratigraphy, 17-19 October 2024, Department of Geology, University of Delhi.
9. Vats, N., Singh, R. K., and Bhaumik, A. K., 2024. Orbital scale synchronization of the Kuroshio Current and Gulf Stream. ICMS 2024/DU/119, pp. 122, in Abstract Volume of 29th Indian Colloquium on Micropaleontology and Stratigraphy, 17-19 October 2024, Department of Geology, University of Delhi.
10. Mohanty, S., and Bhaumik, A. K., 2024. Late-Holocene climate variability recorded from Benthic foraminifera morpho-groups in Western Bay of Bengal, India. ICMS 2024/DU/165, pp. 169, in Abstract Volume of 29th Indian Colloquium on Micropaleontology and Stratigraphy, 17-19 October 2024, Department of Geology, University of Delhi.
11. Roy, L., Ghosh, A. K., Punekar, J., and Bhaumik, A. K., 2024. Pleistocene calcareous nannofossil events from the Northeast Indian Ocean: Insights into palaeoclimate and sedimentation rates. ICMS 2024/DU/214, pp. 218, in Abstract Volume of 29th Indian Colloquium on Micropaleontology and Stratigraphy, 17-19 October 2024, Department of Geology, University of Delhi.
12. Swagata Chaudhuri, S Mohanty, A K. Bhaumik, S. S. Das., 2024. Benthic and Planktic Foraminifera: Unveiling Late Holocene Paleoclimatic and Paleoceanographic Fluctuations" Oral presentation at 3rd INQUA-MARE workshop - Tropical Realm, Costa Rica (9-11 January 2024).
13. Mohanty, S., Chaudhuri, S., Bhaumik, A. K., and Kumar, P., 2023. Holocene Climate Variability Recorded from Benthic Foraminifera Morphogroup in Western Bay of Bengal, India. Abstract ID: 14611. Session 13i: Ocean circulation, carbon and climate: Perspectives from proxies and models. Goldschmidt Conference 2023.
14. Chaudhuri, S, De, S., Srivastava, H., Chattopadhyay, K., and Bhaumik, A. K., 2023. Influence of Paleoclimate and Paleodepositional Environment on Organism's flourishing: A Case Study on the Cenozoic Sediments From the Kachchh Region, Western India. Abstract ID: 14581, Session 8d: (Bio)chemical sediments as geochemical archives through deep time - Nutrient availability and the co-evolution of Earth's oceans, atmosphere, continents, and life. Goldschmidt Conference 2023.
15. Ghosh, A. K., Roy, L., Saxena, S., Chakraborty, A., Sensrma, S., Bhaumik, A. K., 2021. Signature of high productivity during Tortonian: evidence from biosiliceous microfossils from northeast Indian Ocean. Online International NECLIME conference on "Neogene Climate Evolution and Biotic Response(S) in South Asia, Organised by BSIP, Lucknow, 7-9 September 2021.
16. Dey, R., Ghosh, A. K., Bhaumik, A. K. (2021): Impact of Radiolarians on Neil Island of Andaman and Nicobar Basin, Northeast Indian Ocean, TMS Annual Conference 2021, Prague on 18th -19th November, 2021, Czech Republic (Oral Presentation).
17. Dey, R., Ghosh, A. K., Bhaumik, A. K. (2021): WADE ratio of radiolarians: A tool for interpretation on the palaeoecology of Neogene sediments from Andaman and Nicobar Basin, Online International NECLIME conference on "Neogene Climate

Evolution and Biotic Response(s) in South Asia", 7-9 September, 2021, organized by Birbal Sahni Institute of Palaeosciences, Lucknow (Oral Presentation).

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31. Srivastava, H., and Bhaumik, A. K., 2016. Fluvial and marine intertrappeans of Anjar: Foraminiferal evidences. Abstract Volume of Seminar on developments in geosciences in the past decades-Emerging trends for the future and impact on society and 58th AGM of the Geological Society of India. 21-23rd October, 2016, Department of Geology and Geophysics, IIT, Kharagpur, pp. 430.
32. Srivastava, H., and Bhaumik, A. K., 2016. Fluvial and marine intertrappeans of Anjar: Foraminiferal evidences. Abstract Volume of Seminar on developments in geosciences in the past decades-Emerging trends for the future and impact on society and 58th AGM of the Geological Society of India. 21-23rd October, 2016, Department of Geology and Geophysics, IIT, Kharagpur, pp. 430.
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34. Ray, S., and Bhaumik, A. K., (2013). Methane flux in Peru Offshore region. Abstract volume of XXIV ICMS, WIGH, Dehradun, 18-20 November, 2013, pp. 120.
35. Bhaumik, A. K., Gupta, A. K., Clemens, S. C., and Mazumder, R.., (2013). Watermass controlled morphological changes in benthic foraminifera. Abstract volume of XXIV ICMS, WIGH, Dehradun, 18-20 November, 2013, pp. 13.
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37. Bhaumik, A. K., Kumar, S., and Kumar, P. (2013). Distribution of benthic foraminifera at gas hydrate rich zone in Krishna-Godavari Basin. 18th Convention of Indian Geological Congress and International Symposium on Minerals and Mining in India-The way forward, inclusive of cooperative mineral-based industries in SAARC countries. Organized jointly with Madhya Pradesh Council of Science and Technology, Bhopal, April 27-29, 2013, Pre Convention Volume, pp-45.
38. Bhaumik A. K., and Gupta, A. K., (2011). Occurrence, clues and importance of natural gas hydrates: Evidence from NW Atlantic. In New Paradigms of

Exploration and Sustainable Mineral Development: Vision 2050 (Eds. Varma, O. P., Sarkar, B. C., Varma, A. K., Mukherjee, M. K., Singh, S.). 17th Convention of Indian Geological congress and International Conference, ISM, Dhanbad, pp. 493-506.

39. Bhaumik, A. K. and Gupta, A. K. (2011). Biotic evidence of methane seepage in gas hydrate rich marine settings. World Petrocoal Congress, New Delhi.
40. Bhaumik, A. K. and Gupta, A. K. (2010). Foraminiferal (Protozoan) signatures for gas hydrate exploration: A case study from NW Atlantic. National Conference cum workshop on Geological and Technological facets of CBM, Shale Gas, Energy Resources and CO_2 sequestration CSECS 2010, ISM, Dhanbad.
41. Bhaumik, A. K. and Gupta, A. K. (2008). Analysis of Semi-Steady State Productivity of a Hyadraulically Benthic Foraminiferal and Geochemical Evidence for the Formation and Destabilization of Gas Hydrate at Blake Ridge Plateau, NW Atlantic. Geo India 2008, Greater Noida, New Delhi.
42. Bhaumik, A. K., Gupta, A. K. (2007). Use of Benthic foraminifera as proxy for gas hydrate accumulation and its destabilization: Observations from Blake Ridge. Abstract volume of XXI Indian Colloquium on Micropalaeontology & Stratigraphy, Pp-17.
43. Bhaumik, A. K., Gupta A. K. (2007). Benthic foraminiferal and geochemical evidences of gas hydrate formation and destabilization from Blake Outer Ridge, NW Atlantic. ICP IX Program and Abstracts, Pp-33.
44. Bhaumik, A. K., Gupta, A. K., Sundar Raj, M. and Mohon, K. (2005). Why were gas hydrates accumulated in the Blake Ridge Plateau. Abstracts, International Symposium on Applied Geochemistry in the evaluation and management of onshore and offshore geo-resources, Pp-4.
45. Bhaumik, A. K. and Gupta, A. K. (2004). Origin of gas hydrates at ODP Site 994, Hole C, Leg 164, Blake Ridge: Evidence from benthic foraminiferal and geochemical data. ICP VIII Program and Abstracts, Pp-79.
46. Bhaumik, A. K. and Gupta, A. K. (2003). Benthic foraminiferal and geochemical evidences for gas hydrate formation in the upper gas hydrate zone at Site 994C, Leg 164, Blake Ridge, NW Atlantic. Abstract Volume, XIX India Colloquium on Micropaleontology and stratigraphy. Pp-4.

WORKSHOP & TRAINING

Arranged:

- One-day workshop for the students of D.P.L.M.A +2 High School, Nawagarh, Baghmara, Dhanbad to introduce with Geology and its scope on July 3, 2025.
- Student awareness program from 22nd to 28th February 2022 in IIT(ISM) under the STUTI project, Funded by DST for the celebration of Azadi Ki Amrit Mahotsav.
- “Uses of Sophisticated Instruments in Earth Sciences” under the banner of the Synergistic Training Program Utilizing the Scientific & Technological

Infrastructure (STUTI), DST, Govt. of India from 25th to 31st March 2022 in IIT(ISM)

- "Frontiers of Earth Science" under the banner of the Synergistic Training Program Utilizing the Scientific & Technological Infrastructure (STUTI), DST, Govt. of India during 12th to 18th July 2022 in In Jadavpur University in association with Prof. Subir Sarkar, Geological Sciences, Jadavpur University.

Attended:

- GeoCon2017, Application of Scanning Electron Microscope (SEM) in Geosciences, Department of Geology, University of Calcutta, 27-28, May, 2017.
- 4th Proficiency course on "Modern practices in petroleum exploration" arranged by Petrotech in association with ONGC at KDMIPE, Dehradun. 22nd-27th September 2008.

PROFESSIONAL ACHIEVEMENTS:

- Member, Establishing ONGC Center in IIT(ISM)
- Head, CRF: From 16.8.2022 to 15.8.2025
- Coordinator, CRF from 01.4. 2020 to 15.8.2022
- DPGC Chairman from 15.10.2020
- NBA SAR Chairman 2019-20
- Convener Concetto 2018
- Member, House Allotment Committee
- Member CIIE, ISM
- Treasurer 6th Indian Mineral Congress (IMC 2014)
- Treasurer Basant 2014
- Treasurer Concetto, 2013
- Treasurer for 5th Indian Mineral Congress (IMC 2013)
- Secretary, ISM Goal Setting Committee from February 2012 to 2014
- Faculty-in-Charge, Students placements during 2011-12
- Member, Basant committee, 2012
- Member, Campus Beautification Committee
- Faculty advisor of SC/ST students of the Department since 2011-12
- Secretary, Departmental Advisory Committee from 06.10.2010 to 2015
- M. Tech Petroleum Course Coordinator during 2008-2010 and 2012-2014
- Faculty-in-charge, Geological Museum from April 2008 to 2015
- Faculty advisor 3-year M. Sc. Tech during 2008-09 and 2016-21
- Faculty–in–Charge, Departmental Website Since March 2008

LABORATORY/FACILITIES DEVELOPMENTS:

- Developed FESEM with EDS, EBSD, CL, and STEM facilities in CRF
- Developed grain size analysis facility procuring particle size analyzer in CRF

- Developed grain size analysis facility (Sieve shaker) using Institutional fund
- Developed micropaleontology laboratory and sample preparation unit in the Department of Applied Geology
- Developed nanoplankton study laboratory with imaging facility funded by MoES
- Developed sample grinding facility using institute fund
- Developing TOC, IT, TN analysis facility (TOC Analyzer) funded by DST FIST II
- Developing FESEM and EDS facility (another one) in CRF

PERSONAL DETAILS

- Name as on Passport: Ajoy Kumar Bhaumik
- Nationality: Indian
- Date of Birth: 25th December 1973
- Languages: English (professional proficiency), Bengali (native proficiency), Hindi,
- Gender: Male
- Marital Status: Married