

## Curriculum Vitae

**Name:** Partha Pratim Chakraborty

**Date of Birth:** 30.11.1966

**Designation:** Professor

**Address:** Department of Geology  
University of Delhi  
New Delhi- 7



### Academic qualification:

Degree	Institution	Board/University	Year of passing	Rank/Position Percentage
Bachelor of science Geology (Hons.)	Jadavpur University, Kolkata	Jadavpur University, Kolkata	1987	1 <sup>st</sup> class 2 <sup>nd</sup> (79%)
Master of Science (In Applied Geology)	Jadavpur University, Kolkata	Jadavpur University, Kolkata	1990	1 <sup>st</sup> class 3 <sup>rd</sup> (76%)
Ph.D	Jadavpur University, Kolkata	Jadavpur University, Kolkata	1996	NA

### Awards/ Distinctions

1. National Merit Scholarship, 1982
2. University Grants Commission (UGC) merit scholarship, 1987
3. Council for Scientific and Industrial Research (CSIR), Govt. of India, Junior and Senior research fellowship, 1990-1994
4. **National Mineral Award (NMA), 2003**

### Job Profile

Position held	Period	Employer
Geologist (Junior)	1994-2000	Geological Survey of India, GOI

Faculty (Assistant and Associate Professor)	2000- 2008	Indian School of Mines (IIT-ISM), Dhanbad, India
Faculty (Professor)	2008-2009	Rajiv Gandhi Institute of Petroleum Technology (RGIPT), Rae Bareli, UP
Faculty (Professor)	2009 – 2019	Department of Geology, University of Delhi
Faculty (Senior Professor)	2019- till date	Department of Geology, University of Delhi

### **Member/Fellow of society**

1. Fellow, Geological society of India
2. Member, IGCP 464 (Continental shelf in Last Glacial Maxima)
3. Member, IGCP 475 (Deltas in Monsoonal Asia)
4. Member, IGCP 509 (Paleoproterozoic supercontinents and Global evolutions)
5. Member, Research Advisory Council (RAC), Wadia Institute of Himalayan Geology, Dehradun, India (2017 - 2021)
6. Co-opted expert member, DST-SERB (2016-2018)
7. Co-Coordinator, Science programme committee, 36<sup>th</sup> International Geological Congress (IGC), India
8. Coordinator, DST-JSPS Japan-India Forum for Advanced Study, 2019
9. External Member, Hiroshima Institute of plate convergence region research (HiPER), Hiroshima University, Japan

### **Organization of Seminar/ Contact programme/ Sponsored course etc.**

1. National Seminar on 'Proterozoic Systems of India'.
2. DST-contact programme on 'Petroleum Systems: Geological and Geophysical approach'
3. Three weeks training programme for ONGC trainees on 'Petroleum Exploration and Exploitation'.
4. National seminar- Advances in stratigraphy and geochronology in Indian sedimentary basins 27<sup>th</sup> Feb, 2019
5. Two week in-field workshop for OIL geologists at Jodhpur, Rajasthan in collaboration with SCHLUMBERGER.

### **Administrative Responsibilities:**

1. Warden, Jubilee hall Hostel 2013-2017
2. IQAC Co-coordinator, Univ. of Delhi 2018-2020

3. Coordinator, Department theory and Practical Exam 2012-2018
4. Co-Coordinator and Content writer for UGC E-Pathshala Programme for Geology

### **Sponsored Research and Consultancy**

#### **Research**

1. Geochemistry and Geochronology of magmatic input in the craton-mobile belt supracrustal ensemble around Eastern margin of Bastar craton: clues for crust-mantle interaction (Rs. 26.5 lakhs) DST-sponsored (completed)
2. Stratigraphic and sedimentological appraisal for the siliciclastic successions of Singhora, Khariar and Ampani Basins, central India: Inter-basinal correlation and basin evolution in regional tectonic backdrop (Rs. 32 lakhs) DST sponsored (completed)
3. Facies, sequence development motif and clues for depositional tectonics in parts of Mid-Neoproterozoic Chattisgarh Supergroup, central India (DST sponsored, 3 and ½ years (2001-2005), completed, Sanctioned amount 7.34lakhs) Research Project (Completed)
4. Geology, geochemistry and evaluation of Total Organic carbon potential for the argillaceous intervals from the Proterozoic Vindhyan and Chhattisgarh basins of India. (48.82 lakhs) DST sponsored (2010-2014) Completed
5. Paleoproterozoic sedimentation in north Indian craton: Evidence from the basal part of Gwalior and Bijawar basin successions. (15.06 Lakhs), UGC sponsored (2012-2017) Completed
6. DST-FIST programme (Rs. 68 lakhs) as coordinator on behalf of Department of Applied Geology, ISM
7. Geological mapping in parts of Kameng district, Arunachal Pradesh, India (GSI sponsored, 1 year (2000), completed)
8. Gold and noble metal search in mafic-ultramafic suite of rocks in parts of Andaman Islands (GSI sponsored, 2 years (1999-2000), completed)

#### **TEACHING EXPERIENCE** (Subjects taught / teaching)

At the undergraduate level: Sedimentology, Petroleum Geology, Stratigraphy, Geomorphology, Crystallography, and Physical Geology.

At the postgraduate (M.Sc, M.Sc Tech and M.Tech) level: Advanced Sedimentology, Sequence Stratigraphy and Basin analysis, Applied stratigraphy, Geophysics, Geological Exploration of oil, Petroleum geology, Sedimentary Environment and Reservoir Petrography.

**Research Interest:**

**Broad discipline:** Sedimentology (Clastic and carbonate), Sequence stratigraphy and Basin Analysis

**a) Publications of research papers in peer-reviewed journals**

1. Bose, P.K. and **Chakraborty, P.P.**, 1994. Marine to fluvial transition: Proterozoic Upper Rewa Sandstone, Maihar, India. **Sedimentary Geology**, v. 89, pp. 285-302.
2. Sarkar S., **Chakraborty P.P.** and Bose P. K., 1994. Multi-mode generation of carbonate tabular intraclast deposits: Unnamed Proterozoic Formation, Maharashtra. **Jour. Geol. Soc. Ind.**, v.43, P. 415-423.
3. **Chakraborty, P.P.**, Banerjee, S., Das, N.G., Sarkar, S. and Bose, P.K., 1996. Volcaniclastics and their sedimentological bearing in Proterozoic Kaimur and Rewa Groups in central India. **Mem. Geol. Soc. Ind.**, v.36, pp. 59-75.
4. Sarkar, S., **Chakraborty, P.P.** and Bose, P.K., 1996. Proterozoic Lakheri Limestone, central India: facies, paleogeography, physiography. **Mem. Geol. Soc. Ind.**, v.36, pp. 5-26.
5. Sarkar, S., **Chakraborty, P.P.**, Bhattacharya, S.K. and Banerjee, S., 1998. C<sup>12</sup> enrichment along intraformational unconformities within Proterozoic Bhandar Limestone, Son valley, India and its implication. **Carbonates and Evaporites**, v.13, pp. 108-114.
6. **Chakraborty, P.P.**, Pal, T., Dutta Gupta, T. and Gupta, K.S., 1999. Facies pattern and depositional motif in an immature trench-slope basin, Eocene Mithakhari group, Middle Andaman, India. **Jour. Geol. Soc. Ind.**, v.53, pp. 271-284.
7. **Chakraborty, P.P.** and Pal, T., 2001. Anatomy of a forearc submarine fan: Upper Eocene-Oligocene Andaman flysch Group, Andaman Islands, India. **Gondwana Research**, v.4, No.3, pp.477-486.
8. **Chakraborty, P.P.**, Mukhopadhyay, B. Pal, T. and Dutta Gupta, T., 2002. Statistical appraisal of bed-thickness pattern in turbidite successions: Andaman Islands, India. **Jour. Asian Earth Sciences** v. 21. pp.189-196.
9. **Chakraborty, P.P.**, Sarkar, S., Bhattacharya, S.K. and Sanyal, P., 2002. Isotopic and sedimentologic clues to productivity and paleogeography in late Riphean sea: a case study from two intracratonic basins of India. **Jour. Indian Academy of Science Academy Proceed. Earth and Planetary Science**, v. 111, p. 379-390.

10. **Chakraborty, P.P.** and Mukhopadhyay, B. 2003. Soft sediment deformation as possible clue for sedimentation rate: case study from two turbidite successions, Andaman Islands, India. **Jour. Geol. Soc. Ind.** v.61 p. 411-418.
11. Joshi, A., **Chakraborty, P.P.** 2003. Plant remains from the upper Siwalik sediments of west Kameng district, Arunachal Pradesh. **Jour. Geol. Soc. Ind.** V. 61, p.319-324
12. Pal, T., **Chakraborty, P.P.**, Dutta Gupta, T. and Singh, C.D., 2003. Geodynamic evolution of the outer arc-forearc belt in the Andaman Islands, The central part of the Burma-Java Subduction complex. **Geological Magazine.** v.140, p.289-307.
13. **Chakraborty, P.P.** and Sarkar, A., 2003. Discussions on 'C, O, Sr and Pb isotope systematics of carbonate sequences of the Vindhyan Supergroup, India: age, diagenesis and implications for global events. **Precambrian Research**, v.129, p.185-188.
14. Mukhopadhyay, B., **Chakraborty, P.P.** and Paul, S. 2003. Facies clustering in turbidite successions: case study from Andaman Flysch Group, Andaman Islands, India. **Gondwana Research**, v.6 No. 4, pp 618-625.
15. Pal, T., **Chakraborty, P.P.** and Ghosh, R.N. 2003. PGE distribution in chromite placers from Andaman ophiolite and its boninitic parentage. **Journal Geological Society of India**, V.62, No.6, 671-679.
16. **Chakraborty, P.P.** and Sarkar, S., 2005. Episodic emergence of offshore shale and its implication: Late Proterozoic Rewa Shale, Son Valley, central India. **Journal Geological society of India** V. 66, P. 699-712.
17. **Chakraborty, P.P.** 2004. Facies architecture and Sequence development in a Neoproterozoic carbonate ramp: Lakheri Limestone Member, Central India. **Precambrian Research.** V. 132, No.1-2, P. 29-53.
18. **Chakraborty, P.P.**, Mukhopadhyay, B. and Majumdar, T. 2004 A modified Waldron Test based on sliding skewness for determining asymmetric cycle in a turbidite section. **Geosciences Journal.** V. 8, No.2, 171-177.
19. Khan, P.K. and **Chakraborty, P.P.** 2005. Two phase opening of Andaman Sea: a new seismo-tectonic insight. **Earth and Planetary Science Letters**, v.229, 259-271.
20. Pal, T., **Chakraborty, P. P.**, Dutta Gupta, T. and Dasgupta, S.C. 2005. Pyroclastic deposit of Mio-Pliocene age in Arakan Yoma – Andaman-Java subduction complex –A document from Andaman Islands, Bay of Bengal, India. **Geochemical Journal** v.39, No.1, pp. 69-82.

21. **Chakraborty, P.P.** and Paul, S., (2005) Proterozoic braid delta deposits: Lohardih Formation, Chhattisgarh Supergroup, India. **Indian Journal of Geology** v. 75, No. 1-4, p.233-253.
22. **Chakraborty, P.P.**, Paul, S. and Das, A. 2005 Facies development and depositional environment of the Mungra Sandstone, Kolhan Group, Eastern India. **Jour. Geological Society of India**, v. 65, p.753-757.
23. **Chakraborty, P.P.** 2006. Outcrop signatures of relative sea level fall on a siliciclastic shelf: Examples from the Rewa Group of Proterozoic Vindhyan basin Jour. Earth System science. Special volume "**Vindhyan Geology: Status and perspectives**".Ed. J.S.Ray and Chandan Chakraborty v. 115, No.1, P. 23-36.
24. Khan, P.K.and **Chakraborty, P.P.**, 2007. The seismic b value and its correlation with Bouguer gravity anomaly over the Shillong Plateau area: tectonic implications. **Journal of Asian Earth Sciences**, v. 29, 136 – 147.
25. **Chakraborty, P.P.** and Paul, S. 2008 Forced regressive wedges on a Neoproterozoic siliciclastic shelf: Chandarpur Group, central India. **Precambrian Research** V. 162, P. 227-247.
26. Khan, P.K. and **Chakraborty, P.P.**, 2009. Bearing of Plate geometry and rheology on shallow-focus mega-thrust seismicity with special reference to 26 December 2004 Sumatra event. **Journal of Asian Earth Science** V. 34, P. 480–491.
27. Bera, M., Sarkar, A., **Chakraborty, P.P.**, Loyall, C.S. and Sanyal, P., 2009 Marine to continental transition in Himalayan foreland. **Bull. Geological Society of America** V.120, No.9/10, P. 1214-1232.
28. **Chakraborty, P.P.**, Das, K., Sarkar, A. and Das, P., 2009. Alluvial fan to storm-dominated shelf transition in the Mesoproterozoic Singhora Group, Chhattisgarh Supergroup, central India. **Precambrian Research**, v. 170, 88-106.
29. Das, K., Yokoyama, K., **Chakraborty, P.P.** and Sarkar, A., 2009. Basal tuffs and contemporaneity of the Chhattisgarh and Khariar basins based on new dates and geochemistry. **The Journal of Geology**, v.117, P. 88-102.
30. Paul, S. and **Chakraborty, P.P.**, 2009. Depositional discontinuity in Neo-Mesoproterozoic rocks of Chandarpur Group, Chhattisgarh Supergroup, Central India. **Indian Journal of Geology**, V. 78, No.1-4, P. 159-174.
31. Sarkar, A., **Chakraborty, P.P.**, Mishra, B., Sanyal, P., Bera, M., 2010. Mesoproterozoic sulfidic ocean and delayed metazoan evolution: Sulfur isotope clues from Indian Proterozoic basins. **Geological Magazine**, 147(2), 206-218.

32. Bera, M., Sarkar, A., **Chakraborty, P.P.**, Loyall, C.S. and Sanyal, P., 2010 Marine to continental transition in Himalayan foreland (Reply). **Bull. Geological Society of America** v. 122; no. 5/6; p. 956–959.
33. Khan, P.K., Ghosh, M., **Chakraborty, P.P.** and Mukherjee, D. 2011 Seismic b-value and the assessment of ambient stress in Northeast India. **Pure and applied Geophysics** v. 168 (10), P. 1693-1706.
34. Bera, M.K., Sarkar, A., **Chakraborty P.P.**, Ravi Kant V. and Choudhury A. K., 2010, Forced regressive shoreface sandstone from Himalayan foreland: implications to early Himalayan tectonic evolution, **Sedimentary Geology** v. 229, P. 268-281.
35. Khan, P.K., Mukherjee, G. and **Chakraborty, P.P.**, 2010. Seismo-tectonic Overview of the Burma-Andaman- Sumatra Subduction Margin Preceding the 2004 off Sumatra Mega-Event. **Mem. Geological Society of India** No. 75, P.81-95.
36. **Chakraborty, P.P.**, 2010 Slides, soft-sediment deformations, and mass flows from Proterozoic Lakheri Limestone Formation, Vindhyan Supergroup, central India, and their implications towards basin tectonics. **Facies**, DOI 10.1007/s10347-010-0241-1.
37. Das, P., Das, K., **Chakraborty, P.P.** and Balakrishnan, S., 2011. 1420 Ma diabasic intrusive from the Mesoproterozoic Singhora Group, Chhattisgarh Supergroup, India: Implications towards non-plume intrusive activity. **Journal Earth System Science**, v. 120(2), 223-236.
38. Khan, P.K, **Chakraborty, P.P.**, Tarafdar, G. and Mohanty, S., 2012. Testing the intra-plate origin of mega-earthquakes at subduction margins. **Geoscience Frontier**, P. 1-9
39. **Chakraborty, P.P.**, Das, P., Das, K., Saha, S. and Balakrishnan, S., 2012. Regressive depositional architecture on a Mesoproterozoic siliciclastic ramp: Sequence stratigraphic and Nd isotopic evidences from Bhalukona Formation, Singhora Group, Chhattisgarh Supergroup, central India, **Precambrian Research**, 200-203, P. 129-148.
40. **Chakraborty, P.P.**, Das, P., Saha, S., Das, K., Mishra, S.R. and Paul, P., 2012. Microbial mat related structures (MRS) from Mesoproterozoic Chhattisgarh and Khariar basins, Central India and their bearing on shallow marine sedimentation. **Episodes**, V. 35 (4), P. 1-11.
41. Saha, S., Das, K., **Chakraborty, P.P.**, Das, P., Karmakar, S. and Mamtani, M.A., 2012. Tectono-magmatic evolution of the Mesoproterozoic Singhora basin, central India: Evidence for compressional tectonics from structural data, AMS study and geochemistry of basic rocks. **Precambrian Research** v. 227, P. 276-294.

42. **Chakraborty, P.P.** and Paul, P., 2013. Depositional character of a dry-climate alluvial fan system from Paleoproterozoic rift setting using facies architecture and palaeohydraulics: Example from the Par Formation, Gwalior Group, central India. **Journal Asian Earth Sciences** v. 91, P. 298-315.
43. Singh, A., Anand, V., Pandey, P. and **Chakraborty, P.P.**, 2013. Nodular features from Proterozoic Sonia Sandstone, Jodhpur Group, Rajasthan: A litho-biotectonic perspective. **Journal Earth System Science**, 122(2), 309-320.
44. **Chakraborty, P.P.**, Das, K., Saha, S., Das, P., Karmakar, S. and Mamtani, M.A., 2013. Reply to the discussion of Deb (2013) on the paper of Saha et al. (2013) entitled 'Tectono-magmatic evolution of the Mesoproterozoic Singhora basin, central India: Evidence for compressional tectonics from structural data, AMS study and geochemistry of basic rocks' **Precambrian Research** v. 236, P. 297-302.
45. Sarkar, S., Banerjee, S., Samanta, P., Chakraborty, N., **Chakraborty, P.P.**, Mukhopadhyay, S. and Singh, A.K., 2014. Microbial mat records in siliciclastic rocks: Examples from Four Indian Proterozoic basins and their modern equivalents in Gulf of Cambay. **Journal Asian Earth Science**, 91, 362-377.
46. Banerjee, S. Mondal, S., **Chakraborty, P.P.** and Meena, S.S., 2016 Distinctive compositional characteristics and evolutionary trend of Precambrian glaucony: Example from Bhalukona Formation, Chhattisgarh basin, India, **Precambrian Research**. v.271, p.33-48.
47. Saha, S., Das, K., Hidaka, H., Kimura, K., **Chakraborty, P.P.** and Hayasaka, Y., 2016 Detrital zircon geochronology (U–Pb SHRIMP and LA-ICPMS) from the Ampani Basin, Central India: Implication for provenance and Mesoproterozoic tectonics at East Indian cratonic margin. **Precambrian Research**, v.281, P. 363-383.
48. **Chakraborty, P.P.**, Saha, S. and Das, K., 2017. Record of continental to marine transition from the Mesoproterozoic Ampani basin, Central India: An exercise of process-based sedimentology in a structurally deformed basin, **Journal Asian Earth Science**, v. 143, P. 122-140.
49. Singh, A., **Chakraborty, P.P.** and Sarkar, S., 2018. Redox structure of Vindhyan hydrosphere: clues from TOC, transition metal (Mo, Cr) concentrations and stable isotope ( $\delta^{13}\text{C}$ ) chemistry. **Current Science**, v. 115, No. 7, P. 1334-1341.
50. Mandal, S., Choudhuri, A., Mondal, I., Sarkar, S., **Chakraborty, P.P.** and Banerjee, S., 2019. Revisiting the boundary between the Lower and Upper Vindhyan, Son valley, India. **Journal Earth System Science**; Indian Academy of Sciences <https://doi.org/10.1007/s12040-019-1250-2>
51. **Chakraborty, P.P.**, Sharma, R. and Kumar, P., 2019 Earthquake-induced soft sediment deformation (SSD) structures from the Bilara limestone formation, Marwar



basin, India. **Journal Earth System Science**; Indian Academy of Sciences, <https://doi.org/10.1007/s12040-019-1182-x>

52. **Chakraborty, P.P.**, Mukhopadhyay, J., Paul. Pritam p., Banerjee, D.M. and Bera, M.K, 2020 Early atmosphere and hydrosphere oxygenation: Clues from Precambrian paleosols and chemical sedimentary records of India. **Episodes** v.43, No. 1, 175-186.
53. Sarkar, S., Banerjee, S. and **Chakraborty, P.P.**, 2020 Microbial Mat Structures and role of microbes in Precambrian siliciclastic sedimentation: Evidence from Indian Proterozoic basins. **Episodes** v.43, No.1, 164-174
54. **Chakraborty, P.P.** and Barkat, R., 2020 A status report on age, depositional motif and stratigraphy of Chhattisgarh, Indravati, Kurnool and Bhima basins, Peninsular India, Proceedings Indian National Science Academy (PNSA), 86 No. 1, P.127-136.
55. Mishra, S., Sharma, A., **Chakraborty, P.P.**, Mohanty, S. and Tripathi, S.C., 2020 Mixed carbonate–siliciclastic sedimentation in the Upper Cretaceous Nilkanth Formation, Garhwal Himalaya, India. **Journal Earth System Science**, 129:125. <https://doi.org/10.1007/s12040-020-01383-3>
56. Barkat, R., **Chakraborty, P.P.**, Saha, S. and Das, K., 2020 Alluvial architecture, paleohydrology and provenance tracking from the Neoproterozoic Banganapalle Formation, Kurnool Group, India: an example of continental sedimentation before land plants. **Precambrian Research**, 350, 105930.
57. Singh, A. and **Chakraborty, P.P.** 2020. Shales of Paleo-Mesoproterozoic Vindhyan basin, Central India: Insight on sedimentation dynamics in Proterozoic shelf. **Geological Magazine**. <https://doi.org/10.1017/S0016756820001168>.
58. Chakraborty, P.P., Sharma, A. and Saha, S., 2020. Deformation features from some Proterozoic (Purana) basins of peninsular India: do they record any story on Precambrian ‘Supercontinent’? **Indian Journal of Geology** V.74, No.4, P. 371-380.
59. Chakraborty, P.P. and Bailwal, R., 2021 Architecture of a tide-influenced, wave dominated shallow-marine deposit from a Paleoproterozoic rift setting: example from the Badalgarh Formation, Bayana basin, Rajasthan, northwest India. **Journal Earth System Science**, 130:63 <https://doi.org/10.1007/s12040-021-01558-6>
60. Singh, A.K. and Chakraborty, P.P., 2022. Geochemistry and hydrocarbon source rock potential of shales from the Palaeo-Mesoproterozoic Vindhyan Supergroup, central India. **Energy Geosciences** <https://doi.org/10.1016/j.engeos.2021.10.007>
61. Kumar, P., Sekhar, S., Shukla, A. and Chakraborty, P.P., 2022. Facies architecture and spatio-temporal depositional variability in the Pliocene Sandhan fluvial system, Kutch Basin, India **J. Earth Syst. Sci.** (2021) 130:237 <https://doi.org/10.1007/s12040-021-01730-y>

62. Paul, P.P. and Chakraborty, P.P., 2022 Mixed-diurnal tidal record from a Palaeoproterozoic embayment in the Par Formation, Gwalior Group, Central India **Geological Journal** DOI: 10.1002/gj.4330
63. Sharma, A., Das, K, Chakraborty, P.P., Shiraishi, F and Kayama, M., 2022. U–Pb zircon geochronology of a pyroclastic rock from the Parsoi Formation, Mahakoshal Group: Implications towards age and tectonics of the Basin in Central Indian Tectonic Zone. **Geological Journal**, DOI: 10.1002/gj.4533
64. Chakraborty, P.P., Bailwal, R., Paul, P.P. and Sharma, A., 2022. Alluvial Sedimentary Records in Indian Precambrian Basins: Implications Toward Unique Precambrian Sedimentary Environment? **Frontiers in Earth Science** doi: 10.3389/feart.2022.892717
65. **Chakraborty, P.P.**, Sharma, R., Das, K., Sharma, A. and Saha, S., 2023. U-Pb zircon geochronology of volcanoclastics and encasing sandstones from the Chhoti Khatu section: Bearing on the Neoproterozoic Marwar Supergroup stratigraphy and its global implications. *Geosystems and Geoenvironment* (Elsevier) 2, 100111. <https://doi.org/10.1016/j.geogeo.2022.100111>
66. **Chakraborty, P.P.**, Barkat, R. and Sharma, A., 2023 Carbonate platform architecture and carbon isotope stratigraphy from the Neoproterozoic Narji limestone Formation, Kurnool Group, India: Decoding clues of relative sea level fluctuations. *Marine and Petroleum Geology*, 149, 106086

**b) Scientific reviews in Peer-reviewed journals:**

1. **Chakraborty, P.P.** and Khan, P.K., 2009. Cenozoic geodynamic evolution of the Andaman-Sumatra subduction margin: current understanding. **Island Arc**. v. 18, p. 184-200.
2. **Chakraborty, P.P.**, Dey, S. And Mohanty, S.P., 2010. Proterozoic platform sequences of peninsular India: Implications towards basin evolution and Supercontinent assembly. **Journal of Asian earth Sciences** v. 39, P. 589 - 607.
3. **Chakraborty, P.P.**, Sarkar, S. and Patranabis-Deb, S., 2012. Tectonics and sedimentation of Proterozoic Basins of Peninsular India. **Proc Indian Natn. Sci. Acad.** 78 No. 3 September 2012 pp. 393-400
4. **Chakraborty, P.P.**, Sharma, R. and Basu Roy, S., 2013. A key role played by hydrocarbon industry in Indian economy and the road ahead. **IROSSS** V.1, No.1, P. 54-62.

5. **Chakraborty, P.P.**, Tandon, S.K. and Saha, S., 2019. Development of Phanerozoic sedimentary basins of India. **Journal Asian Earth Sciences**. V.184, <https://doi.org/10.1016/j.jseaes.2019.103991>

**c) Chapters contributed in books:**

1. Tandon, S.K., **Chakraborty, P.P.** and Singh, V., 2014. Kale, V.S. (Ed) Geological and Tectonic framework of India: providing context to geomorphologic development. *Landscapes and Landforms of India*. Springer, P. 1-14.
2. Das, K., **Chakraborty, P.P.**, Hayasaki, Y., Kayama, M. Saha, S. and Kimura, K., 2015. c. 1450 Ma regional felsic volcanism at the fringe of the East Indian Craton: constraints from geochronology and geochemistry of tuff beds from detached sedimentary basins. In: *Precambrian basins of India*. Mem. Geological Society of London, V. 43, P. 207-221.
3. **Chakraborty, P.P.**, Saha, S. and Das, P., 2016. Geology of Mesoproterozoic Chhattisgarh Basin, central India: current status and future goals. Geological Society of London, Mem. 43, 185-205.
4. **Chakraborty, P.P.**, Pant, N.C. and Paul, P.P., 2015. Controls on sedimentation in Indian Palaeoproterozoic basins: clues from the Gwalior and Bijawar basins, central India. Geological Society of London, Mem. 43, 67-83.
5. Das, K., **Chakraborty, P.P.**, Horie, K., Tsutsumi, Y., Saha, S., Balakrishnan, S., 2017. Detrital zircon U-Pb geochronology, Nd Isotope mapping and sediment geochemistry from the Singhora Group, Central India: Implication towards provenance, its shift and regional stratigraphic correlation: In *Sediment Provenance: Influences on compositional change from source to sink*, Elsevier Book Chapter-15, Elsevier, pp-403-451
6. **Chakraborty, P.P.**, Tandon, S.K., Basu Roy, S., Saha, S. and Paul. Pritam P., 2020. Proterozoic sedimentary basins of India. In: *Geodynamics of the Indian plate: A evolutionary perspective*; Gupta, N. and Tandon S.K (eds) Springer P. 145-178.

**c) Articles published in Seminars**

1. Paul, S. and **Chakraborty, P.P.**, 2003. Tidal sandwave geometry in Neoproterozoic Epeiric Sea: examples from two basins of central India. National Symposium on “Advances in Precambrian geology and mineral resource modeling of central India. Gondwana Geological Society, Nagpur.

***Details of Seminar/ conference attended:***

1. Chakraborty, P.P., 2000. Stable isotopes in Chhattisgarh basin: Implications to sequence stratigraphy and Pc/C boundary. In: DST workshop on “Application of stable isotope geochemistry in Earth sciences: Present Status and Future Needs”.
2. Chakraborty, P.P., 2001. Origin of framboidal pyrite of Amjhor: A dual source? Symposium on ‘Geology and Mineral potential of Bihar and Jharkhand’, ISM, Dhanbad.
3. Paul, S., Dongree, K., Chakraborty, P.P., 2002. Facies and System tract development on a Neoproterozoic lowstand shelf: Raipur Sandstone, Chattisgarh Basin, India. Presented and published in Abstract 1<sup>st</sup> international conference of Association of Petroleum Geologists held at Moussouri, Uttaranchal.
4. Paul, S. and Chakraborty, P.P., 2003. Tidal sandwave geometry in Neoproterozoic epeiric sea: examples from two basins of central India. National Symposium on “Advances in Precambrian geology and mineral resource modeling of central India. Gondwana Geological Society, Nagpur.
5. Paul, S. and Chakraborty, P.P., 2003. Sedimentation history of a glacial half-graben system: A case study from Talchir succession around Dumra area, Jharia basin. 22<sup>nd</sup> convention of Indian Association of Sedimentologists, Srinagar, Garhwal.
6. Chakraborty, P.P. and Paul, S., 2004 Architecture of falling stage and lowstand systems tract products on a Neoproterozoic epicontinental muddy shelf: Lower Rewa Sandstone, Vindhyan Supergroup, India. 32<sup>nd</sup> International geological Congress (IGCP) Florence, Italy, 20-28<sup>th</sup> august.
7. Chakraborty, P.P. and Sarkar, A., 2005. Sedimentological and structural clues for source reversal in Mesoproterozoic Singhora Group of Chhattisgarh Supergroup, central India. National seminar on “Proterozoic systems of India’ Indian School of Mines, Dhanbad, November 11-12.
8. Paul, S. and Chakraborty, P.P., 2005. Petrographic evidences used in ‘Systems Tract’ delineation: Meso-Neoproterozoic rocks of Chhattisgarh Supergroup, India. National seminar on “Proterozoic systems of India’ Indian School of Mines, Dhanbad, November 11-12.
9. Chakraborty, P.P., 2005 The vibrating southeast Asia: A window to the dynamic Earth. National seminar on ‘Theoretical and applied seismology’, Indian School of Mines, Dhanbad, 3-5March.
10. Khan, P.K. and Chakraborty, P.P. 2005 Can we constrain the incidence of mega-thrust events in subduction margins through coupling coefficient? National seminar on ‘East Crust’, Indian School of Mines 21-22<sup>nd</sup> March, 2005

11. Chakraborty, P.P., 2005. The unique and evolving nature of Proterozoic sedimentation system: A viewpoint. Key note address in XXII convention of Indian association of Sedimentologists. December 21-23.
12. Chakraborty, P.P. and Das, K., 2006. Geochemical and geochronological characterization of the magmatic rocks in peripheral basins at the metacratonic boundary of Eastern Ghats belt – a possible study for Rodinia reconstruction. DST group meeting, Banaras Hindu University, Banaras, 19<sup>th</sup> March.
13. Chakraborty, P.P., 2006. Anatomy of Andaman accretionary prism, the central part of the Burma-Java subduction complex. National seminar on 'Active and fossil suture zones'. Wadia Institute of Himalayan Geology. 22-24
14. Datta, S., Flemming, R.L., Bhattacharya, C. and Chakraborty, P.P., 2007. Andaman mud volcanoes – mineralogy and geochemistry of mud and a potential hydrocarbon source. Geological Society of America, Denver Annual meeting (28 – 31 Oct., 2007).
15. Chakraborty, P.P., 2008. Facies, paleogeography and depositional sequence analysis in a Proterozoic foreland: Chhattisgarh Supergroup, central India, 33<sup>rd</sup> International Geological congress, OSLO, Norway, 6-14<sup>th</sup> August, 2008.
16. Chakraborty, P.P., Bera, M.K. and Sarkar, A., 2008 Tectonic control on foreland alluvial sedimentation: A case study from Oligocene Dagshai Formation, Simla Hills, NW India. Third International Conference on the Geology of the Tethys, 8-11 January, 2008, South Valley University – Aswan, Egypt.
17. Paul, P., Singh, A. Arora, A. and Chakraborty P. P., 2011 Initiation of Paleo-Proterozoic Gwalior Basin In A Rift-Mode: Evidences From Siliciclastic Par Formation. National Seminar on modern and paleosediments: Implications to climate, water resources and environmental changes. 'XXVIII convention of Indian Association of Sedimentologists' organized by School of Environmental Sciences, Jawaharlal Nehru University, New Delhi, India November 24th to 26th, 2011.
18. Chakraborty, P.P. 2012. Evolution of a Mesoproterozoic craton-margin basin: Evidences from the Singhora basin, central India. 29th International Association of Sedimentologists (IAS) meeting at Schladming, Austria. 10-13 September, 2012. (oral presentation)
19. Chakraborty, P.P., 2012 Depositional environments, burial history and rock properties: some principal aspects of clastic and carbonate system. Invited talk at Schlumberger, Mumbai. October 11, 2012.
20. Chakraborty, P.P., 2015 Energy sustainability: Plays to Assets. Invited talk. Association of Petroleum Geologists. 4th Annual Technical Seminar, OIL INDIA, Duliajan Chapter 14th March.

21. Chakraborty, P.P., 2017. Invited talk entitled ' 'How was late Paleoproterozoic ocean? Anoxic, Stratified (oxic-sulfidic) or Suboxic? Clues from Gwalior basin, Central India' in National Seminar on ' Recent Advances and Challenges in Geochemistry, Environmental and Sedimentary Geology' organized at Aligarh Muslim University on Feb 27th' 2017.
22. Chakraborty, P.P. and Saha, S., 2017 Detrital zircon geochronology, Nd isotope mapping and sediment geochemistry from the Singhora Group, Central India: implications towards provenance, its shift and regional correlation. National Seminar and Workshop on "Crust, ancient life and mineral resources: Recent researches and future challenges. Presidency University, Kolkata, October 24-15, 2017 (Key Note Address)
23. Chakraborty, P.P., 2018 Stratigraphic riddles in Precambrian basins. Invited talk in National Conference on “Earth System Science with special reference to Himalaya: Advancement and Challenges” Wadia Institute of Himalayan Geology, 16-18th May, 2018.
24. Chakraborty, P.P., 2018 A key role played by hydrocarbon industry in Indian economy and possible significance of Proterozoic frontier basin/s. National seminar on 'Emerging trends in Geophysical research for making in India' at Indian School of Mines 9-11 March' 2018.

***Consultancy projects:***

1. Search for ‘construction stone’ in Middle and South Andaman, India. Sponsored by ‘Andaman Harbour works’ 1999-2000.
2. Petrological characterization of rock-suites in connection with border road construction. Jointly sponsored by ‘NHPC and BSF’ 2004.
3. Petrological characterization of rock-suites in connection with hydel power project. Sponsored by ‘NTPC’ 2005.
4. Petrological and Geochemical characterization of limestone, dolomite and clay reserves for industrial use in Hindustan Lever Limited (Ongoing)

***Supervision of Ph.D/ M.Phil/ M.Tech/ M.Sc/ M.Sc Tech (Geology) theses and dissertations:***

**Ph.D Theses**

1. Paul, Soumen , 2006. Facies, paleogeography and depositional sequence analyses in parts of Meso- Neoproterozoic rocks of Chattisgarh Supergroup, India IIT-ISM, Dhanbad (Awarded).
2. Das, P. 2014 Facies model, Geochronology and Sequence analysis of the Singhora Group of rocks: implications to age and basinal forcings in early history of the Chhattisgarh basin, central India. 184 P Joint guidance Hiroshima University (Awarded)

3. Singh, Arvind K. 2015 Geology, Geochemistry and Evaluation of hydrocarbon source rock potential for the argillaceous intervals from the Proterozoic Vindhyan basin. University of Delhi 211P. (Awarded in Delhi University)
4. Saha, S. (2016) Tracking evolution of Mesoproterozoic Singhora and Ampani basins from the Bastar craton, central India using multi-proxy analysis. 304P. University of Delhi (Awarded in Delhi University)
5. Paul, Pritam, P., 2016. Autogenic and allogenic controls on late Paleoproterozoic continental and marine sedimentation: clues from Gwalior rift basin, Central India. 254P. University of Delhi (Awarded in Delhi University)
6. Sharma. Rajesh, 2021 Depositional modelling, stratigraphic reappraisal, and geochemical nuances during late Neoproterozoic-Cambrian transition from the Girbakhur Formation and Bilara Group of rocks, Marwar Supergroup, Rajasthan, India. University of Delhi (Awarded in Delhi University)
7. Barkat Rasikh, 2022 Architecture of Neoproterozoic continental to shallow-marine sedimentation from the siliciclastic-carbonate succession of the Kurnool Group, India (Awarded in Delhi University)
8. Mishra Shruti Ranjan, 2022 A multi-proxy approach to decode tectono-sedimentation history of the Cretaceous-Paleogene succession in the Garhwal basin, India in the backdrop of India-Asia collision (Awarded in IIT, Dhanbad).
9. Sharma Aditi, 2023 depositional model, sedimentation age and provenance of the Mahakoshal Group, central India: clues from the Sleemanabad and Parsoi Formations (Awarded in Delhi University)
10. Bailwal Rahul 2023 Post-rift depositional history of Paleoproterozoic Bayana basin, North Delhi Fold Belt, India (Awarded in Delhi University)

### **M.Tech Dissertations**

1. Basu, S., 2006. Sub-surface sequence analysis in Tanuku-Bhimabharam area, Krishna-Godavari Basin.
2. Srinivasan. V., 2005. Reservoir characterization of Mandapeta pay-sands in Mandapeta sub-basin, Krishna-Godavari Basin. P. 54.
1. Bora, K., 2004. Sequence analysis for Paleocene and Eocene sediments in parts of Nagapattinam subbasin, Cauvery Basin, India. P. 80.
2. Chakraborty, S., 2004. Depositional ordering in Tertiary succession of Bengal Basin: A sequence stratigraphic approach. P. 68.
3. Das, S., 2002. Depositional motif and sequence architecture in Paleocene-Eocene strata of Nagapattinam Subbasin, Cauvery Basin. P. 66
4. Dey, S., 2002. System tract and sequence development in alluvial strata: Gondwana succession, Bengal Basin, India. P. 72.
5. Godara, S., 2002. Systems Tract character and depositional architecture in Cretaceous section of East Godavari subbasin, Krishna-Godavari Basin. P. 55.
6. Naik, J.K., 2001. Depositional motif on a passive margin setting: An example from a part of Nagapattinam subbasin, Cauvery Basin. P. 48.
7. Biswas, A., 2000. Sequence identification and possible targets for hydrocarbon exploration in post-trappean sediments, Bengal Basin. P. 61.
8. Giri, P.K., 2000. Sequence analysis in paleogene strata: upper Assam, India. 40p.

## **M.Sc/ M.Sc Tech (Applied Geology) dissertations**

1. Dongre, K. P, 2002. Facies, paleogeography and system tract development in siliciclastic Raipur (Deodongar) Sandstone, Chattisgarh Supergroup, central India. P. 36
2. Swain, J., 2003. Facies pattern and depositional architecture in Neoproterozoic Chaporadih and Kansapather Formations around Chandrapur area, Chattisgarh Supergroup, central India. P. 42
3. Sarkar, D., 2003. Sedimentological and isotopic evaluation of Raipur Limestone around Raipur town, Chattisgarh Supergroup. P. 40
4. Goswami, A., 2003. History of Talchir sedimentation in a half-graben system around Dumra area, Jharia Basin, Jharkhand, India. P. 32
5. Das, A., 2004. Facies and paleoenvironmental analysis in Mesoproterozoic Mungra Sandstone Formation and Jhinkpani Limestone Formation, Kolhan group, India. P. 52
6. Dutta, S., 2004. Sedimentological and Isotopic signatures of a Neoproterozoic carbonate platform: Raipur Limestone Formation, central India. P. 42
7. Saha, P., 2004. Response of low gradient siliciclastic shelf under falling and rising sea level trends, an example from Neoproterozoic Chandrapur Group, India. P. 46
8. Sashmal, S., 2005. Clues for foreland geometry from basal part of Singhora Group, Chhattisgarh Supergroup, India. P. 38
9. Rai, S., 2005. Understanding depositional history from subsurface data in Narmada Block, Cambay Basin. P. 54
10. Chakraborty, B., 2005. Sedimentology of Bijoygarh Shale and origin for Amjhore pyrite: clues for possible volcanogenic source. P. 42
11. Sharma, S., 2011. Facies and Paleoenvironmental analysis of Paleoproterozoic Par formation, Gwalior Group: In Sequence Stratigraphic Backdrop. P. 44
12. Arora, A., 2011. Petrographic Evidence for Paleo-Environment and Systems Tract Interpretation, Gwalior Group with special reference to Igneous Inputs. P. 65
13. Saxena, G., 2011, Strom Intervention on a Proterozoic Tidal Flat: Example from Lower Bhader Sandstone, Vindhyan Supergroup, Central India. P. 55
14. Kumar, M., 2012, Petrography and Geochemistry of Mafic Intrusive of Bastar Craton in and around Ampani Basin, Central India. P.48
15. Ahmad, I., 2012, Reconstruction of Carbonate Platform Geometry from the Paleo-Proterozoic Bajno Dolomite Formation, Bijawar Group, Central India. P. 55
16. Rajput, S., 2013, Geology and Geochemistry of Mafic-Pyroclastics-Carbonate Interbedded Sequence at the boundary of Par and Morar Formation, Gwalior Basin, Central India. P.35
17. Choudhary, S., 2013, Facies and Paleohydraulics of Par Fluvial system from the Eastern part of Gwalior Basin, Central India, p. 27
18. Kumar, M., 2015, Controls on Chemical Sedimentation (Iron Formation and Carbonates) in Paleoproterozoic Basin, Gwalior Basin, Central India. P. 70



19. Kumar, A., 2016, Geology of Gora Dongar Hill, Kachchh Basin, India- A Process Based Understanding. P. 36
20. Shukla, A., 2016, Isotope Finger Printing (U-Pb) in Precambrian Sedimentary Basins with Special Emphasis on Provenance Characterization: A case Study From Ampani Basin, Central India. P. 75
21. Sharma, S., 2017, Paleoenvironmental Reconstruction of Coarse Arenaceous Succession from the basal part of Mandhali Formation. P. 30
22. Agarwal, S., 2017, Facies types and Paleohydrology of Alluvial Deposit from the Banganapalli Formation: Clues from Somayajulapalli Section, Kurnool Basin. P. 51
23. Prasad, V., Facies types and Petrography from parts of Narji Limestone exposed around Tamarajupalle Area, Kurnool Basin. P. 41
24. Prakash, A., 2017, Modes of Deposition and Environmental control for Mass flow package from the Jahaj- Govindpura Volcanic formation Paleoproterozoic Bayana Sub-Basin, Rajasthan, India. P. 41
25. Amirkhani, M. H., 2017, An attempt for construction of Carbonate Platform Geometry from Devonian Hajigak Formation, Central Afganistan, With the help of Facies analysis and Petrography. P. 36
26. Kinni, M., 2017, Continental of Marine Transition from Arenaceous Succession Exposed around Garhusia Hill, Marwar Basin, Rajasthan. P. 40
27. Ojha, D. S., 2018, Facies and Paleoenvironmental analysis of Banganapalle Quartzite Formation from Palnad sub-basin of Kurnool basin. P. 38
28. Chakravorty, A. K., 2018, Facies Architecture and Paleohydraulics of a Paleoproterozoic River System: Example from the Nithar Formation, Bayana Basin, Western India. P. 58
29. Aggarwal, E., 2018, Architecture of a prograding depositional lobe from parts of Paleoproterozoic Parsoi formation, Mahakoshal Group, Central India. P. 41
30. Rana, A., 2019, Architecture of a Neoproterozoic Carbonate Ramp: Case study from Narji Limestone, Kurnool Basin, India. P. 47
31. Bhuyan, P., 2019, Facies and Paleodepositional environment analysis of Paleoproterozoic Siliciclastic Shore-face Deposit. Example from the Badalgarh formation, Bayana Basin, North-Delhi Fold Belt. P. 46
32. Bhatia, S. A., 2019, Depositional model of the Panium Sandstone, Kurnool Group: In a Sequence Stratigraphic Backdrop. P. 76
33. Bhatia, S. A., 2019, A Depositional model for Paleoproterozoic Fan Delta from the Riftogenic Bayana Basin, North-Delhi Fold Belt. P. 70
34. Narayan, S. V., 2020, Petrography and Granulometry of Banganapalle and Paniam Arenaceous formation from the Neoproterozoic Kurnool Group, India: Insights on Provenance and Basin Tectonics. P. 52
35. Singh, A., 2020, Facies, paleoenvironment and spatio-temporal evolution of Paleoproterozoic carbonates from the upper part of Sleemanabad formation, Mahakoshal basin, Central India. P. 64
36. Shah Rukh, 2021, Glauconite as a tracer mineral in Sequence Stratigraphic Interpretation. P. 43
37. Raj, A., 2021, Tidal influence in the sedimentation pattern of a wave-dominated shallow marine system. P. 50

- Kaushik, S., 2021, Precambrian river system: uniqueness or preservation bias? P. 80
38. Khan, M. S., 2021, Carbonate sequence stratigraphy: An out-of-phase character from siliciclastics. P. 69
39. Kumari, S. 2021, Role of microbial mat in Precambrian siliciclastic sedimentation. P. 51

### **M.Phil Dissertations**

1. Imam, N., 2016, Depositional Modeling and Detrital Zircon Geochronology from Choti Khatu Section, Eastern Margin of Marwar Craton: An Attempt to Resolve Stratigraphic Riddle. P. 85
2. Patel, R., 2018, Hydrosphere in Archean Era: Some Clues from BIF of Dthgarwar Craton, Southern India. P.45
3. Roy, P., 2018, Development of a fluvio-deltaic system at the transition from Mandhali (inner) to Chandpur (outer) Lesser Himalaya: A process-based sedimentological study. P. 41
4. Sharma, R., 2015, Facies and Paleoenvironment for parts of Girbakhhar formation, Marwar Group of Rocks.