




Faculty Details proforma for DU Web-site

Title	Dr.	First Name	Partha Pratim	Last Name	Chakraborty	Photograph
Designation		Professor				
Address		Department of Geology University of Delhi Delhi- 7				
Phone No Office						
Residence		Warden Lodge, Jubilee Hall Hostel, Delhi - 11 0007				
Mobile		9958372502				
Email		parthageology@gmail.com				
Web-Page		Partha_geology@yahoo.co.in				
Educational Qualifications M.Sc, Ph.D						
Degree		Institution			Year	
Ph.D.		Jadavpur University, Kolkata			1996	
PG		Jadavpur University, Kolkata			1990	
UG		Jadavpur University, Kolkata			1987	
Any other qualification		Attended professional training programme on Petroleum Exploration organized by Petrotech Society				
Career Profile						
CSIR Research Fellow, Jadavpur University, Kolkata, 1990-1994 Geologist, Geological Survey of India 1994 – 2000 Assistant Professor and Associate Professor, Indian school of Mines, Dhanbad 2000-2008 Professor, Rajiv Gandhi Institute of Petroleum Technology, Rae Bareli 2008-2009 Professor, University of Delhi 2009 onward						
Administrative Assignments						
Coordinator, M.Tech (Petroleum Exploration) programme at ISM, Dhanbad Coordinator, M.tech (Petroleum Engineering) programme at Rajiv Gandhi Institute of Petroleum Technology, Rae Bareli Associate Dean, Rajiv Gandhi Institute of Petroleum Technology, Rae Bareli Warden, Jubilee Hall Hostel, 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)						
Areas of Interest / Specialization						
Sedimentology (clastic and carbonate), Sequence Stratigraphy and basin Modeling						
Subjects Taught						
1. Sedimentology (clastic and chemical) 2. Sequence stratigraphy and Basin Modeling 3. Petroleum Geology 4. Reservoir petrophysics 5. Formation Evaluation 6. Geological Exploration of hydrocarbon occurrence						

List against each head (If applicable)

Supervision of awarded Doctoral Thesis

1. Paul, Soumen , 2006. Facies, paleogeography and depositional sequence analyses in parts of Meso- Neoproterozoic rocks of Chattisgarh Supergroup, India (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 (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)
4. Saha, S. (2016) Tracking evolution of Mesoproterozoic Singhora and Ampani basins from the Bastar craton, central India using multi-proxy analysis. 304P. (Awarded)
5. Paul, Pritam, P., 2016. Autogenic and allogenic controls on late Paleoproterozoic continental and marine sedimentation: clues from Gwalior rift basin, Central India. 254 P. (Awarded)

Supervision of Doctoral Thesis, under progress

Four

Supervision of awarded M.Tech dissertations

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

Supervision of Awarded M.Phil dissertation

1. Rajesh Sharma: Facies and Paleo-environment for parts of Girbakhar Formation, Marwar Group of rocks
2. Naiyar Imam: Geology and Geochronology of Chhoti Khattu section of Marwar basin: Implication towards basin correlatability

Publications Profile

List against each head(If applicable) (as Illustrated with examples)

1. *Books/Monographs (Authored/Edited)*
2. *Research papers published in Refereed/Peer Reviewed Journals (2004 onwards)*
- 3.

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

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. **Chakraborty, P.P.**, Paul, S. and Das, A. (2004) A viewpoint on facies development and depositional motif for Mungra Sandstone Formation, Kolhan Group, eastern India. **Jour. Geological Society of India** v. 65, p.753-757.

Khan, P.K. and **Chakraborty, P.P.** (2005). Two phase opening of Andaman Sea: a new seismotectonic insight. **Earth and Planetary Science Letter (EPSL)**, v.229 , 259-271.

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.

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

Chakraborty, P.P. and Paul, S., (2005) Facies architecture and depositional motif in a Proterozoic braid delta: Lohardih Formation, Chattisgarh Supergroup, India. **Indian Journal of Geology**, v. 75, No. 1-4, p.233-253.

Khan, P.K. and **Chakraborty, P.P.**, 2006. 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.

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**.

Sarkar, A., Bera, M.K., **Chakraborty, P.P.**, Sanyal, P., 2008. Marine to continental transition in Himalayan foreland. **Bull. Geological Society of America**, V.120, No.9/10, P. 1214-1232.

Chakraborty, P.P. and Khan, P.K., 2008. Cenozoic geodynamic evolution of the Andaman-Sumatra subduction margin: a current understanding. **Island Arc**, v.18, 184-200.

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. 29, 480-491.

Das, K., Yokoyama, K., **Chakraborty, P.P.** and Sarkar, A., 2009. EPMA U-Th-Pb Monazite Dating and Trace Element Geochemistry of Tuff Units from the Basal Part of Chattisgarh and Khariar Basin, Central India: Implications for Basin Initiation and Depositional Contemporaneity. **Journal of Geology**, v.117, 88-102.

Chakraborty, P.P., Das, K., sarkar, A. and Das, P., 2009. Fan-delta and storm-dominated shelf

sedimentation in the Proterozoic Singhora Group, Chattisgarh Supergroup, central India. **Precambrian Research**, v. **170**, 88-106.

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.

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.

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.

Khan, P.K., Ghosh, M., **Chakraborty, P.P.** and Mukherjee, D. 2010 Seismic b-value and the assessment of ambient stress in Northeast India. **Pure and applied Geophysics (online)** DOI 10.1007/s00024-010-0194-x

M.K. Bera, A. Sarkar, **P.P. Chakraborty**, V. Ravi Kant and A. K. Choudhury, 2010, Forced regressive shoreface sandstone from Himalayan foreland: implications to early Himalayan tectonic evolution, **Sedimentary Geology**, v.229, p.268-281.

Chakraborty, P.P., 2011. Slides, soft sediment deformations and mass flows from Proterozoic Lakheri Limestone Formation, Vindhyan Supergroup, central India and their implications towards basin tectonics. *Facies* (Springer-Verlag) (online)

Das, P., Das, K., **Chakraborty, P.P.** and Balakrishnan, S., 2011. 1420 Ma diabasic intrusives from the Mesoproterozoic Singhora Group, Chhattisgarh Supergroup, India: Implications towards non-plume intrusive activity. **Journal Earth System Science** v.120, No.2, p. 223- 236.

Bera, M., Sarkar, A. and **Chakraborty, P.P.**, 2011. Discussion on 'Storm activities during the sedimentation of late Paleocene- Middle Eocene Subathu Formation, western Himalaya by B.P Singh and A.K.Srivastava'. **Journal Geological Society of India**, v. 78, p. 185-186.

Chakraborty, P.P., Das, K., Tsutsumi, Y. and Horie, K., 2011. Discussion on 'Depositional history of the Chhattisgarh basin, central India: Constraints from new SHRIMP zircon ages' by Bickford et al. **Journal of Geology**, 119, 549-552.

Khan, P.K., **Chakraborty, P.P.**, Tarafdar, G. and Mohanty, S., 2012 Testing the intraplate origin of mega-earthquakes at subduction margins. *Geoscience Frontier*, 1-9.
<http://dx.doi.org/10.1016/j.gsf.2011.11.012>

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, 129-148. doi.org/10.1016/j.precamres.2012.01.004

Saha, S., Das, K., **Chakraborty, P. P.**, Das, P., Karmakar, S., 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* doi.org/10.1016/j.precamres.2012.03.004

Chakraborty, P.P., Sarkar, S. and Patranabis-Deb, S., 2012. Tectonics and sedimentation of Proterozoic Basins of Peninsular India. *Proc Indian Natn. Sci. Acad. (PINS)* 78 No. 3 September 2012 pp. 393-400.

Singh, A., Anand, V., Pandey, P. and **Chakraborty, P.P.**, 2013 Nodular features from Proterozoic Sonia Sandstone, Jodhpur Group, Rajasthan: A litho-bio-tectonic perspective. **Journal Earth System Science**

V. 122, No. 2, p.309-320

Chakraborty, P.P., das, P., saha, S., Das, K., Mishra, S.R. and paul, P., 2013 Microbial mat related structures (MRS) from Mesoproterozoic Chhattisgarh and Khariar basins, Central India and their bearing on shallow marine sedimentation. **Episodes** v. 35, No. 4, p.

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 MesoproterozoicSinghora basin, central India: Evidence for compressional tectonics from structural data, AMS study and geochemistry of basic rocks. **Precambrian Research**, v. 227, p. 276-294.

Chakraborty, P.P. and Paul, Pritam, (2014) Depositional character of a dry-climate alluvial fan system from Palaeoproterozoic 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

Chakraborty, P.P., Sharma, R. and Basu-Roy, S., 2013. A key role played by hydrocarbon industry in Indian Economy and the road ahead. **International Journal of Advancement in Earth and Environmental Sciences** Vol.1, No.1, 54-62.

Sarkar, S., Banerjee, S., Samanta, P., **Chakraborty, P.P.**, Mukhopadhyay, S. and Singh, A.K., (2014) Spectral variation of Microbial mat records in siliciclastic rocks: examples from Four Indian Proterozoic basins and their modern equivalents in Gulf of Cambay. **Journal Asian Earth Sciences**. v. 91, 362-377.

Tandon, S.K., **Chakraborty, P.P.** and Singh, V., (2014) Geological and Tectonic Framework of India: Providing Context to Geomorphologic Development. Ed. Kale, (Springer) p. 3-14

Das, K., **Chakraborty, P.P.**, Hayasaka, Y., Kayama M., Saha S. and Kimura K. (2015) ~1450 Ma regional felsic volcanism at the fringe of East Indian craton: Constraints from geochronology and geochemistry of tuff beds from detached sedimentary basins. **Geological Society of London Memoir** No. 43 on 'Precambrian basins of India: Stratigraphic and Tectonic context'. p. 207-222

Chakraborty, P.P., Saha, S. and Das, P., (2015) Geology of Mesoproterozoic Chhattisgarh basin, central India: current status and future goals. Geological Society of London Memoir No. 43 on 'Precambrian basins of India: Stratigraphic and Tectonic context'. Eriksson, P.G and Mazumdar, R. (Eds.) p. 185-206

Chakraborty, P.P., Pant, N.C. and Paul, P.P. (2015) Controls on sedimentation in Indian Paleoproterozoic basins- Clues from the Gwalior and Bijawar basins, central India. Geological Society of London Memoir No. 43 on 'Precambrian basins of India: Stratigraphic and Tectonic context'. Eriksson, P.G and Mazumdar, R. (Eds.) p. 67 - 84.

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.

Saha, S., Das, K., Hidaka, H., Kimura, K., **Chakraborty, P.P.** and Hayasaka, Y., 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.

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

3. a) *Research papers published in Refereed/Peer Reviewed Conferences*

Chakraborty, P.P., 2000 (abs.). Stable isotopes in Chattisgarh 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".

Chakraborty, P.P., 2001 (abs.). Origin of framboidal pyrite of Amjhor: A dual source? Symposium on 'Geology and Mineral potential of Bihar and Jharkhand', ISM,

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 1st international conference of Association of Petroleum Geologists held at Moussouri, Uttaranchal.

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.

Dhanbad.

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. 32nd International geological Congress (IGCP) Florence, Italy, 20-28th august.

Chakraborty, P.P., 2005 The unique and evolving nature of Proterozoic sedimentation: Present status and future goals. **Key note address in Indian Association of sedimentologists.** 21-22 Dec' 2005.

Wadia Institute of Himalayan Geology, Dehradun, Uttaranchal. PP. 47-48.

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 21-22nd March, 2005.

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, 3-5 March.

Paul, S. and Chakraborty, P.P., 2003 (abs). Sedimentation history of a glacial half-graben system: A case study from Talchir succession around Dumra area, Jharia basin. 22nd convention of Indian Association of Sedimentologists, Srinagar, Garhwal.

Chakraborty, P.P., Hazra, A., 2008 Facies stacking and alluvial sequence development in end Permian Gondwana succession, Raniganj Basin, India. International conference of Geology, Indian Statistical Institute, Kolkata, 7 –11 Jan' 2008.

Schimmel, S. E., Flemming, R., Bhattacharya, C., Chakraborty, P.P., and Datta, S, 2008 Pore water geochemistry and mineralogy of mud from Andaman mud volcanic province, India: Linking tectonics to mud extrusion mechanism. Geological Society of America annual meeting., 21-24th April'.

Chakraborty, P.P., 2008. Facies, paleogeography and depositional sequence analysis in a Proterozoic foreland: Chattisgarh Supergroup, central India, 33rd International Geological congress, OSLO, Norway, 6-14th August.

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, South Valley University – Aswan, Egypt.

Chakraborty, P.P., 2010. Recent geochronologic age data from Proterozoic platform sequences of Peninsular India: Implications towards supercontinent assembly. Oral presentation, AOGS meeting, Hyderabad, July

Khan, P.K. and Chakraborty, P.P., 2010. Deformation and Structures: National Conference, Jadavpur University, Kolkata, 29th-31st October, Oral Presentation of the paper entitled " Subduction margin mega-earthquake: An enigma in plate dynamics.

Saha, S., Chakraborty, P.P., Das, P. and Das, K., 2011 Structural evolution and possible tectonic framework of the Singhora basin, central India in "Precambrian accretionary orogens, February, New Delhi"

Conference Organization/ Presentations (in the last three years)

List against each head (If applicable)

1. *Organization of a Conference*

Coordinator, National seminar on 'Proterozoic Systems of India'

Coordinator, DST contact Programme on Petroleum Systems: Geological and Geophysical approach

Co-Coordinator, ONGC GT course

CO-Coordinator, Refresher course for NMDC geologists

Research Projects (Major Grants/Research Collaboration)

1. Facies, sequence development motif and clues for depositional tectonics in parts of Mid-Neoproterozoic Chattisgarh Supergroup, central India (DST sponsored, (2001-2005), completed)
2. Geochemistry and Geochronology of magmatic input in the craton-mobile belt supracrustal ensemble around Eastern margin of Bastar craton: clues for crust-mantle interaction (DST-sponsored, completed)
3. 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. (DST sponsored; completed)
4. Paleo-proterozoic sedimentation in north Indian craton: Evidence from the basal part of Gwalior and Bijawar basin. (UGC sponsored, ongoing)
5. Geology, geochemistry and evaluation of Total Organic carbon potential for the argillaceous intervals from the Proterozoic Vindhyan and Chhattisgarh basins of India. (DST sponsored, ongoing).

Research collaboration with IIT, Kgp, Jadavpur University, Kolkata, Pondicherry University, IIT, Mumbai, University of Pretoria, South Africa, Horoshima University, Japan, National Science Museum, Hyakunin-cho, Shinjuku-ku, Tokyo, Japan

Awards and 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
5. Coordinator, Indo-UK Frontier of Science, 2014

Association With Professional Bodies

1. *Editing*
Indian Journal of Geology Special Issue
2. *Reviewing*
Journal Asian earth Science
Journal Geological Society of India
Journal Earth System Science
Journal of Evolutionary Biology
Sedimentology
International Journal of Earth Science
Marine and Petroleum Geology
Himalayan Geology
DST-SERC projects

Member, Editorial Board

Journal Earth System Science (Springer)

Journal Invited Editorship:

Indian Journal of Geology, 2009 Special Issue on 'Indian Precambrian Basins' v. 78, No. 1-4,

Other Activities**Consultancy**

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 parts of Karnataka, Gujrat and Rajasthan. Hindustan Lever Limited - 2006

Signature of Faculty Member

- You are also requested to also give your complete resume as a DOC or PDF file to be attached as a link on your faculty page.