

ABRIDGED BIODATA



Dr. BINDHYACHAL PANDEY

BORN: 14.12.1962

Present Status: Professor, Department of Geology
B.H.U., Varanasi -221005

Educational Qualifications:

Throughout **Ist** Division from High School to M.Sc. (Geology), Ph.D. (Geology in 1993).

Field of Specialization: Palaeontology and Stratigraphy.

Chairman/Member of Academic/Administrative bodies:

Member - different committees and Sub-committees in the Department and Faculty/Institute of BHU and other universities.

Proctor - since November 24, 2014 to Sept 2017

Member, B.Sc. Honours Allotment Committee – Institute of Science, BHU since 2018

Member, Disciplinary Committee –Institute of Science, BHU since 2017

Chairman, Ancillary Allotment Committee – Institute of Science, BHU since 2017

Associate Coordinator, Undergraduate Admission Coordination Committee,
Institute of Science (2018-19)

Member, Unnat Bharat Abhiyan Cell, BHU 2018

Member, Steering Committee – Vedic Vigyan Kendra, BHU

Member, NEP Committee – Institute of Science, BHU

Member, Adhoc Board of Studies in M.Sc. (Oceanography), Department of Geophysics, BHU

Member Adhoc Board of Studies of Post Graduate studies of Babasaheb Bhimrao Ambedkar University,
Lucknow

Chairman, Non-teaching Grievance Committee, BHU since May, 2024

Chairman, RAAC, BHU, Since Aug. 2024

Member, PPC, Geology, BHU since Aug. 2023

Chairman, Review Committee for RAAC, BHU, Oct. 2025

Research Projects Completed:

Co-Investigator):

- Ammonoid – Sequence – Magneto Stratigraphic integration in the Kachchh Jurassic, DST Project (in collaboration with NGRI, Hyderabad), over Rs.35 Lacs (Aug., 2009 to Feb. 2013).
- Bio and Sequence Stratigraphic Implications of Late Jurassic ammonoids in Spiti Himalaya, India, CSIR Sponsored Project, over Rs. 05.9 Lacs (April 2010 – March 2014.)

Principal Investigator):

- Biostratigraphic evaluation of Early Cretaceous ammonoids from Spiti Valley, Himachal Himalaya India, DST Project, Rs.36.60 Lacs, (July, 2014- Jan. 2019).

Membership of Learned/ Professional National / International Bodies:

- Life Member- Paleontological Society of India, Lucknow
- Life Member- Indian Geological Congress, Roorkee
- Life Member- Journal of Geological Society of India, Bangalore
- Life Member, Himalayan Geology, Dehradun
- Guest Editor, Journal of the Palaeontological Society of India, Vol.66 (2) of 2021
- Member, Executive Council of the Journal of the Palaeontological Society of India (2023 onward)

Organisation of National/ International Seminar/Symposium

- 2009:** **Organizing Secretary** of the National Symposium “The Planet Earth: Its Finite Resources and Human Civilisation, Department of Geology, BHU, Varanasi, INDIA.
- 2011:** **Organizing Secretary** of the National Workshop “Palaeontology and Stratigraphy: Basics to Applications”, Department of Geology, BHU, Varanasi, INDIA.
- 2012-13:** **Representative**, Geological Society of India, Varanasi Center, for International Earth Science Olympiad -2012 and 2013.
- 2019:** **Co-convener**, ICMS 2019, Department of Geology, BHU.
- 2024:** **Convener**, Geology Day, Department of Geology, BHU
- 2025:** **Co-convener**, Geology Day, Department of Geology, BHU

Ph. D produced: 09

Current Research Interest:

- My researches mainly focus on the study of ammonoid bearing Indian marine Jurassic – Cretaceous successions. The studies are principally aimed at understanding the implications of ammonoid palaeontology in the development of high resolution biochronologic refinement, intrabasinal to intercontinental correlation, depositional framework, sea-level cyclicity, sequence stratigraphy, faunal provincialism, migration routes particularly in and around the Indo - East-African marine faunal province of the southern hemisphere. Besides, this study is also useful in the recognition of OAEs intervals in the Indian Jurassic – Cretaceous records. In addition, systematic revision of mostly Cretaceous bivalves are also being carried out. A few contributions in collaboration with GSI, BSIP, Lucknow, NGRI, Hyderabad and WIHG, Dehradun have also been made in the field of vertebrate palaeontology, palaeobiology, palynostratigraphy, magnetostratigraphy and dendrochronology which emerged in the form of guiding external Ph.D. students and publications.

Major accomplishments are –

- Taxonomic revision of Middle Jurassic – Cretaceous ammonoids as well as Cretaceous bivalves precisely collected from Mesozoic basins of India (Kachchh, Jaisalmer, Spiti, Cauvery and Narmada).
- Discovery of several time diagnostic cosmopolitan index ammonoid genera/species in the Bajocian – Turonian interval of the studied sections.
- The fundamental contribution of lasting significance is the formulation of independent ammonoid zonation scheme (zones/subzones/horizons) in the Indian Middle – Late Jurassic (Kachchh, Jaisalmer) marine sedimentary succession which equals the best of the world developed in Europe (<1 My per horizon) and their intrabasinal to intercontinental correlation.

- Development of a workable biostratigraphic framework for the Late Jurassic - Early Cretaceous marine sequences of the Tethyan Himalayan belt and its correlation with other known areas of the Tethyan Realm including the Kachchh Basin.
- Demarcation of the time boundaries (System/Stage/Substage/Zone/Subzone/Horizon) emphasizing the Jurassic/Cretaceous boundary in the Kachchh and Spiti Himalaya.
- Precision of ammonoid based age assignment to the oldest exposed Mesozoic sediments in Kachchh as Early Bajocian or even older instead of Late Bajocian.
- First ever record of presence of Early Bathonian sediments from Kachchh Mainland.
- Magnetostratigraphic studies in Kachchh Mesozoics in collaboration with NGRI which is the first such effort in Indian Jurassic.
- First ever precise differentiation and record of ammonoid bearing Albian (Lower, Middle and Upper) horizons in the Cauvery Basin and formulation of ammonoid zones/subzones which are well correlatable with standard ammonoid zones as well as the zones developed earlier in the Cauvery Basin.
- Demarcation of Albian/Cenomanian Stage boundary in the Cauvery Basin through ammonoids and refinement of ammonoid stratigraphy of the Cenomanian interval of the Cauvery Basin.
- Formulation of 1st to 3rd order sequence stratigraphic framework in the Jurassic of Kachchh.
- The palaeontological studies have also been used for comprehension of interplay of eustacy, sediment supply, sequence stratigraphy and recognition of OAEs intervals etc.
- The study of ammonoid bearing sequences of Tithonian of Jaisalmer and Oxfordian of Kachchh is still continued.

Future Vision:

- Taxonomic revision of Tithonian ammonoids of Jaisalmer and Oxfordian ammonoids of Kachchh and Cretaceous ammonoids of the Spiti, Cauvery and Narmada basins on modern trends and their diverse geological implications emphasizing formulation of a comprehensive high resolution (<1.2 Myr) ammonoid biostratigraphic framework in the Indian marine Jurassic - Cretaceous geological record and intrabasinal to intercontinental correlation. Continuation of OAEs studies in Indian Jurassic – Cretaceous sequences for recognizing source rock potentiality of the rocks essential for hydrocarbon exploration.

List of some most significant research contributions:

1.	Pandey, B. , Gautam, J. P., Tewari, D. N., Jaitly, A. K. and Singh, A K	2025	Recent development in the Upper Albian ammonoid stratigraphy of the Cauvery Basin, south India, Himalayan Geology , Vol.46 (1), pp.28-38.
2.	Murthy, S. Deveshwar P. Mishra, D. P., Dieter Uhl, D. Saxena, A. Singh, V.P., Runcie P. Mathews, R.P., Kumar, A., Pandey, B.	2025	Palynofloral and geochemical evidence for Permian-Triassic transition from Talcher Coalfield, Son-Mahanadi Basin, India: Insights into age, palaeovegetation, palaeoclimate and palaeowildfire, Geoscience Frontiers , Vol. 16(4), pp.102086.
3.	Kumar, K., Pandey, B. , Kulshreshtha, S., Pandey, P., Ghosh, T., Kumar. R., Bhattacharya, D.	2025	Pycnodont fishes from the Eocene of Jaisalmer Basin, Rajasthan, western India, Journal of the Palaeontological Society of India , Vol.70 (1-), pp. 207-217.
4.	Kumar, R., Pandey, B. , Das, N., Agrawal, N., Murthy, S, Kumar, K. and Pathak, D. B.	2025	Late Tithonian (Late Jurassic) palynological record from the Jaisalmer Basin (India), Historical Biology , Vol. 37 (10), pp. 2157-2169.
5.	Rastogi, T., Singh, J., Singh, N., Chauhan, P., Yadav, R. and Pandey, B.	2023	Temperature variability over Dokriani glacier region, Western Himalaya, India, Quaternary International , Vol. 664, pp. 33-41.
6.	Tiwari, D.N., Jaitly, A.K., Pandey, B. , Gautam, J.P. and Singh, A.K.	2022	Taxonomic revision of the Late Cretaceous pectinid bivalves <i>Neithea</i> (Drouet) and <i>Plicatula</i> (Lamarck) from the Trichinopoly Group, Cauvery Basin, south India. Journal of the Palaeontological Society of India , Vol. 67(2), pp. 330-341.
7.	Pandey, B. , Gautam, J. P., Jaitly, A. K. and Tiwari, D. N.	2021	Record of the Middle Albian (Lower Cretaceous) ammonoids from the Cauvery Basin, southern India, Historical Biology 34(6), pp. 947-952.
8.	Kumar, R., Aggarwal, N., Das, N, Pandey, B. and Kumar, K.	2022	Palaeoenvironmental reconstruction based on Palynofacies analysis of the Early to Middle Jurassic of the Lathi Formation, Jaisalmer Basin, India. Journal of the Palaeontological Society of India , Vol. 67(2), pp. 262-273.
9.	Mishra, D. P. , Singh, V.P., Saxena, A., Uhl, D., Murthy, S., Pandey, B. and Kumar, R.	2022	Palaeoecology and depositional setting of an Early Permian (Artinskian) mire based on a multi-proxy study at the Jagannath coal mine (Talcher Coalfield), Mahanadi Basin, India, Palaeogeography Palaeoclimatology Palaeoecology , Vol. 601(1), pp. 111124.
10.	Jaitly, A. K., Kumar, S., Pandey, B. , Gautam, J. P. and Tiwari, D. N	2021	Turonian (Late Cretaceous) Heterodont Subfamilies: Lucininae, Eriphylinae and Opinae (Bivalvia: Veneroida) from the Narmada Basin, central India, Journal of the Palaeontological Society of India , Vol. 66(2), pp. 336-345.
11.	Mishra, D.P., Murthy, S. Pandey, B. and Singh, A.K.	2021	Palaeobotanical evidence for Artinskian wildfire in the Talcher Coalfield, Mahanadi Basin, India, Journal of the Palaeontological Society of India Vol. 66(2), pp. 303-314.

12.	Singh, D., Sharma, M., Bhan, U., Pandey, B. Pandey, S.K., and Singh, D.	2021	Carbonate Fan fabric Structures (FFS) in time and space: A case study from the Palaeoproterozoic Kajrahat Limestone, Vindhyan Supergroup, India, Journal of the Palaeontological Society of India , Vol. 66(2), pp. 290-302.
13.	Kumar, R, Das, N., Aggarwal, N. and Pandey, B.	2021	Palynofacies of early Cretaceous Pariwar Formation, Jaisalmer Basin, Rajasthan, India: Palaeoenvironmental interpretation, Journal of the Palaeontological Society of India , Vol. 66(2), pp. 251-257.
14.	Jaitly, A.K., Pandey, B. , Mishra, S.K., Gautam, J.P and Tiwari, D.N.	2021	Microfacies analysis and depositional environments of the upper Cretaceous (Campanian - Maastrichtian) succession in the Cauvery Basin, southern India, Journal of the Palaeontological Society of India , Vol. 66(2): pp. 235-250.
15.	Pandey, B. , Jaitly, A.K., Gautam, J.P and Tiwari, D.N.	2021	Ammonoid biozonation in the Lower Albian (Lower Cretaceous) succession of the Ariyalur Sub-basin, Cauvery Basin, south India, Journal of the Palaeontological Society of India , Vol. 66(2), pp. 182-189.
16.	Das, N., Raj Kumar, Pandey, B. , Kumar K. and Bhattacharya, D.	2021	Record of plant fossils from freshly discovered succession of the Pariwar Formation, Jaisalmer Basin, western India. Historical Biology , Vol. 33(12), pp. 3281- 3290.
17.	Kumar, K., Pandey, P., Bajpai, S., Bhattacharya, D. and Pandey, B.	2021	Middle Eocene (Bartonian) vertebrate fauna from Bandah Formation, Jaisalmer Basin, Rajasthan, western India. Historical Biology , Vol. 33(10), pp. 2182-2192.
18.	Bhargava, O.N., Singh, B.P., Pandey, B. , Ganai, J.A., Bhat, G. M., Prasad, S.K. and Rashid, R.A.	2020	Contributions to the Palaeozoic and Mesozoic of the Himalaya. Proc. Indian National Science Academy , Vol.86, pp. 217-226.
19.	Gautam, J.P., Pandey, B. , Jaitly, A.K, Pathak, D.B., Lehmann, J. and Tiwari, D.N,	2019	Late Albian ammonites from the Cauvery Basin, South India. Cretaceous Research , Vol. 102, pp. 12-29.
20.	Kumar, S., Pathak, D. B, Pandey, B. , Jaitly, A. K. and Gautam, J. P.	2018	The age of the Nodular Limestone Formation (Late Cretaceous), Narmada Basin, central India, Journal of Earth System Science , Vol. 127(8), pp. 1-7 of article no. 109.
21.	Pandey, B. , Pathak, D. B., Mathur, N., Jaitly, A.K, Singh, A.K. and Singh, P.K.	2018	A preliminary evaluation on the prospects of hydrocarbon potential in the carbonaceous shales of Spiti and Chikkim formations, Tethys Himalaya, India. Journal Geological Society of India , 92 (4), pp.427-434.
22.	Kumar, S., Jaitly, A. K., Pandey, B. , Pathak, D. B. and Gautam, J. P.	2018	Turonian (Late Cretaceous) limids (bivalve) from the Bagh Group, central India. Journal of the Palaeontological Society of India , Vol.63 (1), pp. 91-100.
23.	Pandey, B. , Pathak, D.B. and Jaitly, A.K.	2018	A new ammonite genus <i>Geticeras</i> gen. nov. from the Lower Valanginian (Lower Cretaceous) of the Spiti Valley, Tethys Himalaya, India. Himalayan Geology , Vol 39 (1), pp. 115-120.
24.	Pandey, B. and Pathak, D.B.	2017	Biostratigraphic implication of <i>Olcostephanus</i> Neumayr 1875 (Ammonoidea) from the Lower Cretaceous Giumal Formation, Spiti Valley, Tethys Himalaya, India. Cretaceous Research , Vol. 70, pp. 244-251.

25.	Pandey, B. and Pathak, D.B.	2016	The possibility of the Oceanic Anoxic Events (OAEs) study in the Indian marine Jurassic - Cretaceous outcrops. Journal of Geological Society of India , Vol. 87, pp. 261-267.
26.	Mamilla, V., Pandey, B. , Pathak, D.B., Guguloth, P. and Krishna, J.	2016	Magnetostratigraphy of the Middle Jurassic Sediments from Kachchh Basin, Western India. International Journal of Geosciences , Vol.7, pp. 301-310.
27.	Pandey, B. and Pathak, D.B.	2015	Status of the Indian Early Cretaceous ammonoid record in light of recent observations in the Spiti Valley, Himachal Himalaya. Himalayan Geology , Vol. 36 (1), pp. 1-8.
28.	Pandey, B. and Pathak, D.B.	2015	Record of Early Bathonian ammonoids from Kachchh, India: Biostratigraphic and Palaeobiogeographic implications. Journal of the Palaeontological Society of India , Vol. 60 (1), pp. 33-44.
29.	Jaitly, A.K., Kumar, S. and Pandey, B.	2015	First record of <i>Pressastarte Zakharov</i> and <i>Pinguiastarte Kelly</i> (Mollusca: Bivalvia) from the Turonian (Upper Cretaceous) of the Bagh Beds, Central India. Journal of the Palaeontological Society of India , Vol. 60 (2), pp. 21-26.
30.	Venkateshwarlu, M, Pandey, B. , Pappana, G., Pathak D. B. and Krishna, J.	2014	New Palaeomagnetic Evidences about Deccan Trap volcanic activity from the magmatic bodies of Kachchh Basin, Northwest India Indian Geophysical Union , Vol. 18, pp. 99-107.
31.	Pandey, B. , Pathak, D. B. and Krishna, J.	2013	<i>Calliphylloceras heterophylloides</i> (Oppel, 1856) from the basal most Jurassic succession of Sadhara dome, Kachchh, India. Journal of the Palaeontological Society of India , Vol. 58 (1), pp. 61-65.
32.	Pandey, B. , Pathak D. B. and Krishna, J.	2013	Preliminary remarks on new ammonoid collection from freshly exposed succession of the Spiti Formation between Lidang and Giumal, Spiti Valley, Himachal Himalaya, India. Himalayan Geology , Vol.34 (2), pp. 124-134.
33.	Pathak D. B., Krishna J. and Pandey B.	2011	Differentiation of the Significant Late Valanginian (Early Cretaceous) Transgressive Event in the Spiti Himalaya, India. Journal of Asian Earth Sciences , Vol. 42, pp. 1226-1231.
34.	Krishna, J., Pandey, B. and Pathak, D.B.	2011	Current status of the Jurassic ammonoid stratigraphic framework in the Indian Subcontinent with focus on the tectonically controlled regional transgressive - regressive couplets. Journal of Geological Society of India , Mem Vol. 78, pp. 140-176.
35.	Krishna J. Pandey B. and Pathak D. B.	2010	Update on the Jurassic Stratigraphy of the Indian Subcontinent with Focus on the Tectonically Controlled Regional Transgressive – Regressive Couplets. Earth Science Frontiers , Vol. 17, pp. 138-140.
36.	Krishna J. and Pandey B. and Pathak D. B.	2009	Characterization of <i>Dichotomoceras</i> in the Oxfordian of Kachchh (India), Journal Geological Society of India , Vol.74, pp. 469-479.
37.	Krishna, J, Pandey, B. and Ojha, J.R.	2009	<i>Gregoryceras</i> in the Oxfordian of Kachchh (India): diverse eventful implications, Geobios , Vol. 42, pp. 197-208.
38.	Mamilla, V., Ojha, J. R., Pandey, B. and Krishna, J.	2008	Preliminary remnant magnetism results from the Jurassic sediments of Kachchh, India, Current Science , Vol. 95(6), pp. 725-727.

39.	Pandey, B. and Krishna, J.	2002	Ammonoid Biostratigraphy in the Tithonian (Late Jurassic) of Jaisalmer, Western India, Geophytology , Vol. 30 (1 & 2), pp. 17-25.
40.	Krishna, J., Pathak, D.B. Pandey, B. and Ojha, J.R.	2000	Transgressive Sediment Intervals in the Late Jurassic of Kachchh, India, GeoResearch Forum , Vol. 6, pp. 321-332.
41.	Krishna, J., Pandey, B. , Ojha, J. R. and Pathak, D.B.	2000	Ammonoid – Foraminifer Zonal Integration in the Jurassic of Kachchh, India, ONGC Bulletin , Vol. 37(1), pp. 9-21.
42.	Krishna, J., Pathak, D.B. and Pandey, B.	1998	Development of Oxfordian (Early Upper Jurassic) in the most Proximal Exposed Part of Kachchh Basin at Wagad Outside the Mainland Kachchh, Journal Geological Society of India , Vol. 52, pp. 513-22.
43.	Schweigert, G. Krishan, J., Pandey, B. and Pathak, D.B.	1996	A New Approach to Correlation of the Upper Kimmeridgian Beckeri Zone Across the Tethys, N. Jb. Geol. Paleont. , Vol. 202 (3), pp. 345-373.
44.	Krishan, J., Pathak, D.B. and Pandey, B.	1996	Ammonoid age control in the Mesozoic succession of Wagad outside the Mainland Kachchh, Geophytology , Vol. 26 (1), pp. 63-68.
45.	Krishna, J., Pathak, D.B. and Pandey, B.	1996	Quantum Refinement in the Kimmeridgian Ammonoid Chronology in Kachchh (India), Geo Research Forum , Vol.1-2, pp.195-204.
46.	Krishna, J., Pandey, B. and Pathak, D.B.	1996	Ammonoid Chronology in the Tithonian of Kachchh (India), Geo Research Forum , Vol.1-2, pp. 205-214.
47.	Krishna, J. Melendez, G., Pandey, B. and Pathak, D.B.	1996	Middle Oxfordian Ammonites (Perisphinctinae) from Kachchh (India): Biostratigraphic and Paleobiogeographic Implications, Revista Espanola De Paleontologia , Vol.11, pp. 140-47.
48.	Krishna, J., Melendez, G., Pandey, B. and Pathak, D. B.	1995	Characterisation of the Ammonoid Genus <i>Larcheria</i> (Middle Oxfordian) in Kachchh (India): Paleontology, Biostratigraphic and Paleobiographic Evaluation in the Context of North-Tethyan Occurences, C. R. Acad. Sci. Paris , Vol. 321 (Ila), pp. 1187-1193.
49.	Krishna, J., Pathak, D.B. and Pandey, B.	1994	New Ammonoid Evidence on the Jurassic/Cretaceous Boundary in Kachchh (India), Geobios , MS 17, pp. 327-335.
50.	Krishna J., Melendez, G., Pandey, B. and Pathak, D.B.	1994	Middle Oxfordian Perisphinctinae and Biostratigraphy from Kachchh (India), Jornadas de Paleontologia , pp. 106-108.
51.	Krishna, J., Ojha, J.R. and Pandey B.	1993	Comment on Research Note – A Note on the Middle Jurassic Stratigraphic Succession of Keera Dome, Kachchh District, Gujarat by S. Prasad 1993, Journal Geological Society of India , Vol. 42(1), p. 102.