

## Curriculum Vitae

**Dr. (Mrs.) Anju Saxena**

**Scientist-E**

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### AREA OF RESEARCH INTERESTS

- Gondwana Palaeobiology of Permian and Triassic sequences of penninsular India.
- Signatures of the early land plant terrestrialization, and their subsequent evolution in the Early Palaeozoic sequences of Himachal Himalayas.
- Establishing evolutionary traits of different plant genera through geological time and whole organ/plant reconstructions based on dispersed material.
- Holocene Palaeoclimate and geomorphology of Ganga Plain.

**Ph.D.** in Geology entitled as “Proxy records of Holocene climate change in lacustrine sediments and geomorphic changes in lakes of the Central Ganga Plain” from Department of Geology, University of Lucknow, Lucknow under the supervision of Prof. I.B. Singh.

### WORK EXPERIENCE

	Positions held	Name of the Institute	Period
1.	JRF (CSIR)	Dept. of Geology, Lucknow University	01.01.2004 – 31.12.2005
2.	SRF (CSIR)	Dept. of Geology, Lucknow University	01.01.2006 – 16.03.2008
3.	Geologist (Junior)	Geological Survey of India	17.03.2008 – 05.11.2008
4.	Scientist-B	Birbal Sahni Institute of Palaeosciences	06.11.2008 – 30.06.2013
5.	Scientist-C	Birbal Sahni Institute of Palaeosciences	01.07.2013 – 30.06.17
6.	Scientist-D	Birbal Sahni Institute of Palaeosciences	01.07.2017 – 30.06.21
7.	Scientist-E	Birbal Sahni Institute of Palaeosciences	01.07.2021 – present

### AWARDS AND ACHIEVEMENTS

1. (2019): Recipient of funding support from, Institute of Geology and Palaeontology, University of Münster, WWU, Münster, Germany (One month, December 15, 2019- January 14, 2020)
2. (2019): Recipient of funding support from German Academic Exchange Grant (DAAD), to attend and deliver talk in 19<sup>th</sup> ICCP 2019, Cologne, Germany (August 2019)
3. (2018): SERB-DST **Sponsored Project** EMR-/2016/006042 on “Quest for the signatures of early land plants, their subsequent evolution and biodiversity in the Early Palaeozoic sequences of Spiti Himalayas: palaeoenvironmental and paleogeographical implications”.
4. (2018): Awarded (INSA Exchange) Indian National Science Academy-Chinese Academy of Sciences Bilateral exchange Fellowship for one month to work in NIGPAS, Nanjing China.
5. (2015): SERB DST, India **Travel Grant** to attend XVIII ICCP-2015, Kazan Russia.
6. (2013): **First Prize for ‘Best Poster Presentation’**, in “International Conference on Recent Developments in Stratigraphy”, Fergusson College, Pune, India- December-2013.

7. **(2007):** Represented Lucknow University, Lucknow at “**Interactive Meet of Indian Research Scholars & Students with European and Indian Science Icons**”, organized by Department of Science and Technology, at Vigyan Bhavan, New Delhi February, 8, 2007.
8. **(2007):** Selected for **Earth Science Representative Student from India** for “**Visit of 100-member Indian youth delegation to China from 7<sup>th</sup> to 16<sup>th</sup> June, 2007**” organized by the Ministry of Youth Affairs & Sports, Government of India.
9. **(2007):** Received UGC travel grant from Lucknow University to attend NCCR climate summer school, at Grindelwald, Switzerland.
10. **(2006):** Selected for **Young Scientist Award Programme** for Indian Science Congress (2006).
11. **(2006):** Secured **All India First Rank** in Union Public Service Commission, India Examination of Geologists’ for the batch 2005.
12. **(2005):** Received **Best Poster Presentation** award in Second Open Science meeting **PAGES**, Beijing, China.
13. **(2005):** Received **International Travel Support Grant from DST, Govt. of India, to attend** Second Open Science meeting **PAGES**, Beijing, China.
14. **(2003):** Awarded Junior Research Fellowship)-CSIR-UGC NET.
15. **(2001):** Received Shanti Devi Bhatia Memorial **Gold Medal** for securing **first position** in post-graduation
16. **(2000):** Received Ganesh Dayal Verma **Endowment Trust Fund Certificate and Scholarship** from Lucknow University, for securing highest marks (**first position**) in post-graduation **M.Sc. I.**
17. **(1995):** Received ‘Certificate of appreciation from Rotary Club and Tata Unisys Ltd. Education Centre’ for **standing First in the** College in Intermediate examination.

#### MEMBERSHIP OF SCIENTIFIC/PROFESSIONAL SOCIETIES

- Life member – Geological Society of India, Bangalore
- Life Member – The Palaeontological Society of India, Lucknow.
- Life Member – The Palaeobotanical Society, Lucknow, India.
- Life Member – The Indian Science Congress Association, Kolkata, India.
- Life Member – Indian Society of Earth Scientists, Lucknow.
- Life Member – Himalayan Geology, WIHG, Dehradun.

**Associate Editor: Journal of the Palaeontological Society of India, Lucknow.**

**Associate Editor: ‘Geophytology’, A Journal of Palaeobotanical Society of India, BSIP Lucknow.**

**Co-Editor:** In Editorial Board of an open access journal “Earth Science India” published by the Society of Earth Scientists, Lucknow.

#### Ph.D. SUPERVISION:

1. Title: “Ordovician-Silurian Biodiversity of the Tethyan Himalayan strata, Spiti, H.P., India.  
Candidate: **Mr. Husain Shabbar**, (UGC- MANF Fellow) Sambalpur University, Odisha, **Awarded in 2021.**
2. Title: “Floristic evolution and biodiversity in the Late Palaeozoic sequences of Spiti Himalayas: palaeoenvironmental and palaeogeographical implications.  
Candidate: **Mr. Suyash Gupta**, (Sponsored project Fellow) Dept. of Geology, Univ. of Lucknow, Lucknow, **submitted in February, 2023.**
3. Title: “Palaeobiodiversity of coal forming flora of western part of Son-Mahanadi Basin: depositional and palaeoecological implications”.  
Candidate: Mr. Anand Prakash, (CSIR JRF) Banaras Hindu University, Varanasi, (ongoing).

RESEARCH PUBLICATIONS (year 2018 onwards), For complete publication profile visit:

[https://www.researchgate.net/profile/Anju\\_Saxena](https://www.researchgate.net/profile/Anju_Saxena) BSIP, Lucknow.

(\*indicate corresponding author), Citation: 796, H Index: 15 as per Research Gate profile (total publications: 54)

1. Gupta S, **Saxena A\***, Shabbar H, Murthy S, Singh KJ & Bali R. (2023) First record of late Devonian-early Carboniferous palynoflora from the Lipak Formation, Spiti Basin, Tethyan Himalaya and their biostratigraphic implications. *Journal Palaeontological Society of India* (In Press).
2. Shabbar, H. **Saxena, A\*** Oive Tinn, Gupta, S. and Singh, K.J. (2023). Non-calcified siphonous warm-water marine macroalgae from the Ordovician strata of Spiti, Tethys Himalaya, India. *Palaeoworld* **32**: 396-410.
3. Pillai, S.S.K., Manoj, M.C., Mathew, R.P., Murthy, S., Sharma, A., Sahoo, M., **Saxena, A.**, Pradhan, S., and Kumar, S. (2023). Lower Permian Gondwana sequence of Rajhara (Daltonganj Coalfield), Damodar Basin, India: Floristic and geochemical records and their implications on marine incursions and depositional environment. *Environmental Geochemistry and Health*, <https://doi.org/10.1007/s10653-023-01517-8>.
4. Gupta S, **Saxena A\***, Shabbar H, Murthy S, Singh KJ & Bali R (2022). First record of late Carboniferous palynoassemblage from Ganmachidam Formation, Spiti Valley: Implications for age assessment and extent of Glossopterid elements in the Tethyan realm. *Geological Journal*, 57(6): 2160-2178. <https://doi.org/10.1002/gj.4400>
5. Shabbar, H., **Saxena, A\***, Gupta, S. Singh, K.J. and Goswami, S. (2022). The first record of cornulitids tubeworms from the early Late Ordovician of Spiti, Tethyan Himalaya, India. *Historical Biology*, **34**: 176-187. (DOI: 10.1080/08912963.2021.1905634).
6. Mishra DP, Singh VP, **Saxena A**, Uhl D, Murthy S, Pandey B, 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*, <https://doi.org/10.1016/j.palaeo.2022.111124>
7. Goswami S, Singh KJ, **Saxena A**, Wang J, Chandra S & Gupta S (2022). Witnessing floral evolution: A case study from Barakar Formation in Lajkura Colliery, Ib-River Coalfield, Mahanadi Basin, India. *Historical Biology* **34**: 30-41. DOI: 10.1080/08912963.2021.1893713.
8. **Saxena A**, Khan M, Raychaowdhuri N & Singh KJ (2022). Early Permian macrofloral diversity in Indian Gondwana: Evidence from Talchir Formation of Singrauli Coalfield, Son-Mahanadi Valley Basin, Central India. *Journal of Earth System Sciences*. **131**: 70-78. <https://doi.org/10.1007/s12040-021-01805-w>.
9. Zhang, Y, Zheng, S, Singh, KJ, Wang, Y, Zhang, S & **Saxena, A** (2022). Glossopterids survived end-Permian mass extinction in North Hemisphere. *Global Geology*, DOI: 10.3969/j.issn.1673-9736.2022.04.02.
10. **Saxena A\***, Suyash Gupta S, S. Pillai SSK, Murthy S, Agnihotri D, Khangar R, Savita C and Merajuddin Khan M, (2022). Late Permian macrofloral remains from the Bijori Formation, Satpura Gondwana Basin and their biostratigraphic Implications. *Geophytology* **51(1&2)**: 41–58.
11. Patel N, Gahluad S, **Saxena A**, Thakur B, Bharti N, Dabhi A.K. J, Bhushan R & Agnihotri, R. (2022). Revised chronology and stable isotopic (carbon and nitrogen) characterization of Lahuradewa lake sediment (Ganga-plain, India): Insights into biogeochemistry leading to peat formation in the lake. *Journal of the Palaeontological Society of India*, **67(1)**, 113-125.
12. **Saxena A\*** & Singh IB. (2022). Lahuradewa multiproxy Studies. *Pragdhara*, **27-28**: 413-451.
13. **Saxena A\***, Gupta S, Murthy S, Singh KJ, Prakash A & Singh P.K. (2021). Diversity of the genus *Gangamopteris* McCoy in the Early Permian sequences of Singrauli Coalfield, Son-Mahanadi Basin, India. *Journal Palaeontological Society of India* **66**: 23-34.

14. Patel R, Goswami S, Sahoo M, Pillai SSK, Aggarwal N, Mathews RP, Swain RR, **Saxena A** & Singh, KJ (**2021**). Biodiversity of a Permian temperate forest: A case study from Ustali area, Ib River Basin, Odisha, India. *Geological Journal*, **56(2)**, 903-933.
15. Agnihotri A, Genise JF, **Saxena A** & Srivastava A (**2021**). *Palliedaphichnium gondwanicum* new ichnogenus new ichnospecies, a millipede trace fossil from paleosols of the upper Permian Gondwana sequence of India. *Journal of Paleontology*. **95**: 906-912, <https://doi.org/10.1017/jpa.2021.38>
16. **Saxena, A.**, Murthy, S. and Singh, K.J. (**2020**). Floral diversity and environment during the Early Permian: A case study from Jarangdih Colliery, East Bokaro Coalfield, Damodar Basin, India. *Palaeobiodiversity and Palaeoenvironments*, **100**: 33-50.
17. Shabbar, H., **Saxena, A\***, Singh, K.J., Goswami, S. (**2020**). Cyclocrinids from the Lower Palaeozoic Tethyan sequence of Spiti, India. *Palaeoworld*. **29** (3): 534-543. <https://doi.org/10.1016/j.palwor.2019.07.007>.
18. Murthy S, **Saxena A** & Chakraborti B (**2020**). Palynostratigraphy of Permian and Mesozoic subsurface sediments of Brahmani coalfield, Rajmahal Basin, India. *J. Palaeontol. Soc. India* **65(2)**: 149-161.
19. Murthy, S., Aggarwal, N. and **Saxena A.** (**2020**). Early Permian floral diversity and palaeoenvironment of the West Bokaro coalfield, Damodar Basin, India. *J. Palaeontol. Soc. India*, **65(1)**: 1-14.
20. **Saxena, A.**, Singh, KJ., Cleal, C.J., Chandra, S., Goswami, S. and Shabbar, H. (**2019**). Development of the *Glossopteris flora* and its end Permian demise in the Tatapani–Ramkola Coalfield, Son–Mahanadi Basin, India. *Geological Journal*, **54**: 2472-2494.
21. **Saxena A\***, Singh KJ, Murthy S, Anand Prakash and Singh PK (**2019**). Early Permian floral diversity deduced from the Barakar Formation of Singrauli Coalfield, Son-Mahanadi Basin, India. *J. Palaeontol. Soc. India*, **64(2)**: 169-183
22. Goswami, S., **Saxena, A.**, Singh, K.J., Chandra, S., and Cleal, C.J. (**2018**). An appraisal of the Permian palaeobiodiversity and geology of the Ib-River Basin, eastern coastal area, India. *J. Asian Earth Sci.* **157**: 283–301.
23. Goswami, S., Das, K., Sahoo, M., Bal, S., Pradhan, S., Singh, K.J. and **Saxena, A.** (**2018**). Biostratigraphy and floristic evolution of coal swamp floras of a part of Talcher Basin, India: a window on a Permian temperate ecosystem. *Arabian Journal of Geosciences*, **11**: 524-538.
24. Trivedi A., **Saxena A.**, Chauhan, M.S., Farooqui, A., Sharma A. et al., (**2019**) Vegetation, climate and culture in Central Ganga plain, India: A multi-proxy record for Last Glacial Maximum. *Quatern. International*, **507**: 134-147.
25. Trivedi A., Saxena A & Chauhan MS (**2019**). Study on modern vegetation distribution in Sevan Tal area, Raebareli District, Uttar Pradesh. *Journal of Palaeosciences*, **68(1-2)**, 139-146.
26. Thakur, B., **Saxena, A.** and Singh, I.B. (**2018**). Paddy cultivation during early Holocene: evidence from diatoms in Lahuradewa lake sediments, Ganga Plain. *Current Science*, **114**: 2106-2115.
27. Singh, K.J., Murthy, S. **Saxena A.** and Shabbar, H. (**2017**). Permian macro and miofloral diversity, palynodating and palaeoclimate implications deduced from the coal-bearing sequences of Singrauli Coalfield, Son-Mahanadi Basin, Central India. *Journal of the Earth System Science*, **126**: 25-41.
28. Srivastava, P., Agnihotri, R., Sharma, D., Meena, N.K., Sudriyal, Y.P., **Saxena, A.**, Bhushan, R., Salwani, R., Banerjee, U., Sharma, C., Bisht, P., Rana, N., Jayangondaperumal, R. (**2017**). 8000-year monsoonal record from Himalaya revealing reinforcement of tropical and global climate systems since mid-Holocene. *Nature Scientific Reports*. DOI10.1038/s41598-017-15143-9
29. **Saxena, A.** Trivedi, A. and Chauhan, M.S. (**2017**). Pollen rain vis-à-vis vegetation relationship in Kikar Tal (lake), Raebareli district, Uttar Pradesh, Central Ganga Plain. *J. Palaeontol. Soc. India* **62** (1), 121-128.

30. **Saxena, A.** and Trivedi, A. (2017). Pollen based vegetation and climate change records deduced from the lacustrine sediments of Kikar Tal (Lake), Central Ganga Plain, India. *Palaeobotanist*, 66: 37-46.
31. **Saxena A.**, Singh, K.J., Murthy, S., Chandra, S. and Goswami S. (2016). Spore tetrads - ?Indicators of intense climatic regimes – A case study from Early Permian of Singrauli Coalfield, Son-Mahanadi Basin, India. *Geological Magazine*, Cambridge University Press, 153: 426-437.
32. Cleal, C.J., Bhat, G.M., Singh, K.J., Dar, E.M., **Saxena, A.** and Chandra, S. (2016). *Spondylodendronpranabii*-the dominant lycopsid of the late Mississippian vegetation of the Kashmir Himalaya. *Alcheringa*, 40: 443-455.
33. **Saxena, A.** and Singh, D.S. (2016). Multiproxy Records of Vegetation and Monsoon Variability from the lacustrine sediments of Eastern Ganga Plain since 1350 A.D. *Quaternary International*, 444, 24-34.
34. Singh, K.J., **Saxena A.**, Goswami, S. (2016). In situ occurrence of *Vertebraria* roots in the Raniganj Formation of Singrauli Coalfield and its palaeoecological significance. *Current Science*, 110 (3): 299-301.
35. Trivedi, A., **Saxena, A.** and Chauhan, M.S. (2016). Studies on pollen rain vis-a-vis vegetation relationship in Chaudhari- Ka-Tal, Raebareli District, Uttar Pradesh. India. *Journal of the Palaeontological Society of India*, 61: 85-90.
36. **Saxena, A.**, Singh, K.J., Shabbar, H. and Prakash, A. (2016). Macrofloral Assemblage from the Early Permian Barakar Formation of Singrauli Coalfield, Son-Mahanadi Basin, India. *Palaeobotanist*, 65: 139-150.
37. **Saxena A.**, Trivedi, A. Chauhan, M.S. and Sharma A. (2015). Holocene vegetation and climate change in Central Ganga Plain: A study based on multiproxy records from Chaudhary-Ka-Tal, Raebareli District, Uttar Pradesh, India. *Quaternary International* 371:164-174.
38. Singh, K.J. and **Saxena, A.** (2015). End Permian (Lopingian) floral diversity in Singrauli coalfield: Evidences from Jingurdah colliery, Son-Mahanadi basin, India. *Journal of the Palaeontological Society of India*, 60: 97-112.
39. Trivedi, A., **Saxena, A.** and Chauhan, M.S. (2015). Modern pollen rain deposition pattern in Lashoda Tal, Raebareli District, Uttar Pradesh, India. *Palaeobotanist*, 64: 105–112
40. **Saxena, A.**, Singh K.J. and Goswami, S. (2014). Advent and decline of the genus *Glossopteris* Brongniart in the Talcher Coalfield, Mahanadi Basin, Odisha, India. *The Palaeobotanist*, 63: 157–168.
41. Singh, K.J., Singh, R., Cleal, C.J., **Saxena, A.** and Chandra, S. (2013) Carboniferous floras in siliciclastic rocks of Kashmir Himalaya, India and the evolutionary history of the Tethyan Basin *Geological Magazine*, Cambridge University Press 150 (4): 577-601.
42. **Saxena, A.**, Prasad, V. and Singh, I.B. (2013). Holocene palaeoclimate reconstruction from the phytoliths of the lake-fill sequence of Ganga Plain. *Current Science*, 104: 1054-1062.
43. **Saxena, A.**, Singh, K.J. and Goswami S. (2013). The Genus *Euryphyllum* Feistmantel Revisited - Occurrence and Diversity in Indian Gondwana. *The Palaeobotanist*, 62: 187-198.
44. Srivastava, A.K., **Saxena A.** and Agnihotri D. (2012). Morphological and stratigraphical significance of Lower Gondwana Plant Fossils of Mohpani Coalfield, Satpura Gondwana Basin, Madhya Pradesh. *Journal of the Geological Society of India*, 80: 676-684.
45. Singh, K.J., Serge V. Naugolnykh and **Saxena, A.** (2012). Permian and Triassic plant assemblages from the Tatapani-Ramkola Coalfield (India). Geological Institute of RAS, Moscow: 98-109.
46. Singh K.J., **Saxena, A.** and Goswami, S. (2012). Palaeobiodiversity of the Lower Gondwana rocks in the Korba Coalfield, Chhattisgarh, India observations on the genus *Gangamopteris* McCoy. *Palaeobotanist*, 61(1): 145-163.

47. **Saxena A.**, Singh I.B. and Agarwal P.N. (2011). Palaeoecological implications of ostracod and gastropod assemblages of the Holocene lake records from the Ganga Plain. *Journal of the Palaeontological Society of India*, **56**(2): 149-163.
48. Singh, K. J., Chandra, S. and **Saxena, A.** (2011) *Tatapania* gen. nov., a possible cone of *Schizoneura gondwanensis* Feistmantel from the Late Permian in the Tatapani-Ramkola Coalfield, India. *Palaeobotanist*, **60**: 251-263.
49. Srivastava, A.K., **Saxena A.** and Agnihotri, D (2010). Trace fossils from the Barakar Formation (Early Permian) of SatpuraGondwana Basin, Madhya Pradesh, India. *Geophytology*, **39**: 17-22.
50. Singh, S., Singh, M., Choudhary, A.K., **Saxena, A.**, Singh, I.B. and Jain, A.K. (2010). Sr isotopic signature of the Ganga Alluvial Plain and its implication to Sr flux of the Ganga River System. *International Journal of Earth Science*, **99**(8): 1991-1997.
51. Srivastava, A.K., **Saxena A.**, Agnihotri, Deepa. (2009). Insect Burrows from the Upper Permian sequence of Bijori Formation of SatpuraGondwana Basin, India. *Permophiles*, **54**: 12-14 pp.
52. Misra, A., **Saxena, A.**, Yaduvanshi, M., Mishra, A., Bhadauriya, Y. and Thakur, A. (2007). Proposed river-linking project of India: A boon or bane to nature. *Environmental Geology*, **51**: 1361-1376.
53. **Saxena, A.** Prasad, V., Singh, I. B., Chauhan, M. S., Hasan, R. (2006). On the Holocene record of phytoliths of wild and cultivated rice from Ganga Plain: Evidence for rice based agriculture. *Current Science*, **90**: 1547-1552.
54. Tewari., R, Srivastava, RK, Singh, KK, Saraswat, KS, Singh, IB, Chauhan, MS, Pokharia, AK, **Saxena, A.** Prasad, V and Shrama, M. (2006): Second preliminary report of the excavations at Lahuradewa district, Sant Kabir Nagar, U.P. 2002 – 2003 – 2004 and 2005 – 2006. *Pragdhara*, **16**: 35-68.

#### MEETINGS/CONFERENCE REPORTS

1. Tripathi, S., Murthy, S. and **Saxena A.** (2018). The 10<sup>th</sup> European Palaeobotany and Palynology Conference-2018, Dublin, Ireland. *Journal Geological society of India*, **92**: 769-769.
2. Singh, V.K., **Saxena A.**, Verma, P., Ranhotra, P.S., Agnihotri, D., Srivastava, J., Manoj, M.C. and Quamar, F. (2016). Meeting Report: India International Science Festival 2015. *Current Science*, **110**: 756-757.

#### BOOK PUBLISHED

1. Murthy, S., **Saxena, A\***, Pillai, S.S.K. and Gupta S. (2023). Reappraisal of Permian and Early Triassic palynoflora and palynostratigraphy of Son-Mahanadi Basin and their climatic implications. In Samant, B. (Ed.) Application of Palynology in stratigraphy and climate studies. **Springer Nature Publishing** (Accepted).
2. Das, N. and **Saxena, A\***. (2023). An overview of Rajmahal Flora and its significance. In Samant, B. (Ed.) Application of Palynology in stratigraphy and climate studies. **Springer Nature Publishing** (Accepted).
3. Sahoo, M., Murthy, S., **Saxena, A.**, Pillai, S.S.K. and Kumar, S. (2023). Significance of palynology in understanding age, palaeoclimate and correlation of Indian Gondwana sediments. In Samant, B. (Ed.) Application of Palynology in stratigraphy and climate studies. Springer Nature Publishing (Accepted). In Samant, B. and Thakre, D. (Eds.) Application of Palynology in stratigraphy and climate studies. **Springer Nature Publishing** (Accepted).
4. **Saxena, A\***. and Singh, I.B. (2017). Holocene climate and geomorphic changes in lakes of central Ganga Plain. **Lambert Academic Publishing**, ISBN: 978-3-659-74400-6, pp. 189.
5. **Saxena, A.** and Singh, I.B. Spatial and Temporal Variations in the Lakes and Ponds of the Interfluvial Areas of Ganga Plain in the ~Past Hundred Years. (2011) (Eds. D.S. Singh and N.L. Chhabra) *Geological Processes and Climate Change*, **Mac Millan Publishers India Ltd.** pp. 205-222.

## TRAININGS IMPARTED:

- Worked as **Field training faculty** for two days field visit to Kalpi Area for “Refresher course on Palaeontology and Biostratigraphy” during 13<sup>th</sup>-14<sup>th</sup> May, 2015, to 20 member joint group of BSIP scientists and GSI scientists, under the GSI-BSIP joint programme and also coordinated the Lab demonstration at BSIP for Junior Geologists staff of GSI.
- Delivered several invited lectures as guest faculty at training divisions of GSI, Lucknow University and other institutions.
- **Summer Internships:**  
Imparted summer trainings for internships to four candidates, Ms. Smriti Pandey, (Dept. of Geology, Lucknow University), Mr. Hilal, Aligarh Muslim University, Aligarh, Mr. Ashwin George, UPES, Dehradun, Mr. Yogesh Kumar and Ms. Antara Gupta, Geology Department, Lucknow University (in the year 2023, 2019, 2016, 2015, 2013) pertaining to the Palaeofloristics, age determination and depositional environment of Lower Gondwana sequences of Singrauli Coalfield, Son-Mahanadi Basin, India.

## FIELD EXPERIENCES

1. Continental Permian and Triassic sequences of Son-Mahanadi and Damodar basins, India.
2. Palaeozoic Tethyan sequences of Spiti Basin, Himachal Pradesh, India.
3. Bhuj, Habo dome, Rann of Kachh, (Tertiary rocks) Gujarat.
4. Geological Field Expedition in the Manali-Leh-Nubra Valley area of Western Himalaya (Ladakh) under AAPG, Dehradun (strata ranging from metamorphic crystalline basement, Precambrians to Quaternary deposits).
5. Excursion to the Lesser Himalayas (Almora, Nainital, Lansdown, Uttarakhand State)
6. Excursion to Igneous and sedimentary terrain of Jaipur, Ajmer, Rajasthan State.

## IN-HOUSE (BSIP) PROJECTS HANDLED

<b>2021 - Present:</b>	Biostratigraphy, Basin Correlation, Climatic and Biotic events during Palaeozoic and Mesozoic.
<b>2019 - 2021:</b>	Reconstruction of the palaeovegetation scenario and palaeoenvironment of the Gondwana sequences of Son-Mahanadi Basin.
<b>2017 - 2019:</b>	Precursors of Indian Gondwana flora. Their subsequent evolution and proliferation through Palaeozoic sequences of Spiti and Son-Mahanadi Basins.
<b>2012 - 2017:</b>	1.) Palaeofloristics and Palaeoecology of the Palaeozoic rocks of Singrauli and Kuresia coalfields (Son-Mahanadi Basin) and North West Himalayas (Himachal & Uttarakhand). 2.) Quaternary palaeoclimate reconstruction and palaeovegetation dynamics in the Central Ganga Plain.
<b>2008 - 2012:</b>	Palaeobotanical investigation of Satpura Gondwana Basin to analyze the floristic succession, evolutionary prospective, biostratigraphy and palaeoenvironment.