**NOWRAD ALI**

**Address:** Institute of Geoscience, University of Potsdam, Germany.

**E-Mail:** ali.nowrad@uop.edu.pk; nowrad.ali@uni-potsdam-de

**Education**

Master of Science (MS) in Geology, University of Peshawar, Pakistan — 2018

Final grade: 4.0 / 4.0

Master's Thesis: *Sedimentological investigations of the Upper Paleogene strata, northern Sulaiman Range, Pakistan: Implications for early Himalayan evolution.*

**Awards and Distinctions**

- Merit Certificate for securing 2nd position in BS Geology
- Higher Education Commission (HEC), Pakistan — Scholarship for students from FA-TA and Balochistan (MS in Geology)
- American Association of Petroleum Geologists (AAPG) — Grant-in-Aid for PhD research (€2,000)
- Higher Education Commission (HEC), Pakistan and DAAD (Germany), Overseas PhD Fellowship

**Research Interest**

Tectonic and structural evolution of the western Himalayas. I use an integrated approach combining sedimentary basin analysis, sediment provenance (detrital geochronology and isotopic tracers), and low-temperature thermochronology. My work focuses on constraining the timing, and style of the India–Asia collision, and on quantifying exhumation, deformation, and fold-thrust belts development in the north western Himalayas.

**Experience**

- Doctoral student at the University of Potsdam since April 2022 (Thesis Title: ***From India–Asia Collision to Exhumation: Cenozoic Tectonic Evolution of the Sulaiman–Katawaz Fold-Thrust Belt, Western Himalaya***).
- Guest Researcher, Geoscience Centre of the University of Göttingen, Department of Structural Geology and Geothermal Energy, Germany (Since December 2025)
- Guest Researcher, Institute of Geosciences, University of Potsdam (2023-24)
- Research Assistant, Institute of Geosciences, University of Potsdam (2022-23)

- Lecturer at the Department of Geology, University of Peshawar, Pakistan, September 2013 till date.
- Attachment as a Research Assistant in SRMIHP (Source Rock Mapping and Investigation for Hydrocarbon Potential in FATA) at National Center of Excellence in Geology, UOP. 5th February 2012 to 4th September 2012.

**Courses Taught**

**Undergraduate (BS Geology):** Sedimentology, Structural Geology, Sequence Stratigraphy, Mineralogy, Optical Mineralogy, Igneous–Sedimentary–Metamorphic Petrology, Sedimentary Depositional Systems

**Graduate (MS in Geology):** Sedimentary Geology, Tectonics of Northern Pakistan (Himalayas), Clastic Sedimentology, Techniques in Field Geology.

**Researchgate link: https://www.researchgate.net/profile/Nowrad_Ali**

**Google Scholar:**

**https://scholar.google.com/citations?user=nAseDCkAAAAJ&hl=en**

**Peer-Reviewed Journal Articles**

**2026**

1. **Ali, N.**, Sobel, E. R., Bernhardt, A., Ghani, H., Sajid, M., Mohibullah, M., Gerdes, A., Stammeier, J. A., & Glodny, J. (2026). Provenance constraints on early India–Asia collision: Evidence from the Late Cretaceous–Early Cenozoic Sulaiman–Katawaz Basin fill. *Basin Research, 38*(5), e70142. https://doi.org/10.1111/bre.70142.
2. Ahmed, F., Khan, A., **Ali, N.**, Zafar, M., ul-Haq, I., Khan, M. A. 2026. Microfacies and diagenetic synthesis of the late Early–Middle Eocene Kirthar Formation, Waziristan, Pakistan: Implications for reservoir characterization. *Carbonates and Evaporites, 41*(1), 34. https://doi.org/10.1007/s13146-026-01233-1.

**2025**

3. Hanif, M., Sabba, M., Abbasi, I. A., Abioui, M., **Ali, N.,** & Ishaq, M. (2025). Inferring paleoenvironmental changes from integrated facies analysis of the late Paleocene–early Eocene succession, Salt Range, Pakistan. *Carbonates and Evaporites, 40*(2), 60. https://doi.org/10.1007/s13146-025-01077-1.
4. **Ali, N.**, Hanif, M., Mohibullah, M., Khan, A., Orakzai, A., Hashmi, S. I. (2025). On the Transition from Remnant Tethys Sea to Foreland Basin During the Late Paleogene in the Western Himalayas, Pakistan. *Geological Journal*, *0*, 1–29.

5. Sajid, M., Wiedenbeck, M., Arif, M., Glodny, J., **Ali, N.**, Ghani, H., and Stammeier, J. A. (2025). Tectono-magmatic evolution of the Indian crust in western Himalayas during Paleoproterozoic: Insights from Nanga Parbat and Indus syntaxis in northern Pakistan. *Gondwana Research*, *137*, 299–317.

**2024**

6. Anjum, M. N., Hidayat, H., **Ali, N.**, Iqbal, U., and Yazdi, A. (2024). Petrographic, Mineralogical and Geo-mechanical Characteristics of Marble from Mohmand District, Pakistan: Implications for its Use in Construction Industry. *International Journal of Economic and Environmental Geology*, *15*(1), 33–40.

**2023**

7. Ullah, S., Hanif, M., Radwan, A. E., Luo, C., Rehman, N. U., Ahmad, S., Latif, K., **Ali, N.**, Thanh, H. V., Asim, M., and Ashraf, U. (2023). Depositional and diagenetic modeling of the Margala Hill Limestone, Hazara area (Pakistan): Implications for reservoir characterization using outcrop analogues. *Geoenergy Science and Engineering*, *224*, 211584.

**2022**

8. Ullah, S., **Ali, N.**, Latif, K., Iqbal, S., Tahir, M., Hussain, H. S., Turab, S. A., Mumtaz, A., and Mohibullah, M. (2022). Paleoenvironments and sequence stratigraphy of the Early Jurassic Datta Formation, Chichali Nala, Surghar Range, Pakistan. *Himalayan Geology*, *43*(1A), 111–121.
9. Ahmad, W., Zeb, S. F., **Ali, N.**, Latif, K., Siyar, S. M., Khan, S. Petrophysical modelling of the Cretaceous Lower Goru Formation, Lower Indus Basin, Pakistan. Journal of Himalayan Earth Sciences. 2022. 55, 2, 57-67.
10. Anjum, M. N., Nazeer, A., Daud, F., Bhatti, A. H., Ahmad, S., **Ali, N.**, Rehman, G. Mineralogical and reservoir characteristics of well cutting samples of sandstone of the Permian Tobra Formation from Adhi Field, Potwar Basin, Pakistan. Pakistan Journal of Hydrocarbon Research. 2022. 25, 21-34.

**2021**

11. Wadood, B., Khan, S., Li, H., and **Ali, N.** (2021). The Late Permian clastic–dominated carbonate shelf, Northwestern Pakistan: Implications for palaeoenvironments, palaeoclimate, and reservoir modelling. *Geological Journal*, *56*(10), 4947–4975.

12. Hanif, M., Sabba, M., **Ali, N.**, Rahman, M. U., Ali, F., and Swati, M. A. F. (2021). A multi-proxy based high-resolution stratigraphical analysis of the possible Palaeocene–Eocene boundary interval, Salt Range, Pakistan. *Geological Journal*, *56*(1), 434–456.

**2020**

13. Rizwan, M., Hanif, M., **Ali, N.**, and Ur Rehman, M. (2020). Microfacies analysis and depositional environments of the Upper Cretaceous Fort Munro Formation in the Rakhi Nala Section, Sulaiman range, Pakistan. *Carbonates and Evaporites*, *35*(4), 1–20.

**2019**

14. Özcan, E., Hohenegger, J., Yücel, A. O., Kayğili, S., **Ali, N.**, and Hanif, M. (2019). Baculogypsina Sulaimanensis N. Sp. (calcarinidae) from the Priabonian of Sulaiman Range, Pakistan: a Possible Ancestor For the Recent Baculogypsina Sphaerulata. *Journal of Foraminiferal Research*, *49*(4), 423–433.
15. Özcan, E., Yücel, A. O., Erbay, S., Less, G., Kaygili, S., **Ali, N.**, & Hanif, M. (2019). Reticulate Nummulites (N. fabianii Linage) and Age of thePellatispira-Beds of the Drazinda Formation, Sulaiman Range,Pakistan. *International Journal of Paleobiology & Paleontology*, *2*(1), 1–10.

**2018**

16. Özcan, E., Saraswati, P. K., Yücel, A. O., **Ali, N.**, and Hanif, M. (2018). Bartonian orthophragminids from the Fulra Limestone (Kutch, W India) and coeval units in Sulaiman Range, Pakistan: a synthesis of shallow benthic zone (SBZ) 17 for the Indian Subcontinent. *Geodinamica Acta*, *30*(1), 137–162.
17. **Ali, N.**, Özcan, E., Yücel, A. O., Hanif, M., Hashmi, S. I., Ullah, F., Rizwan, M., and Pignatti, J. (2018). Bartonian orthophragminids with new endemic species from the Pirkoh and Drazinda formations in the Sulaiman Range, Indus Basin, Pakistan. *Geodinamica Acta*, *30*(1), 31–62.
18. Babar, N., Mohibullah, M., Kasi, A. K., **Ali, N.**, and Khan, A. (2018). Foraminiferal Biostratigraphy of the Eocene Kirthar Formation, western Sulaiman Fold-Thrust Belt. *Journal of Himalayan Earth Sciences*, *51*(2A), 66–77.
19. Anjum, M. N., **Ali, N.**, Rehman, Z. U., Ghayas, M., Ahmad, W. Rock Aggregate Potential of Limestone Units in the Khyber Formation, Pakistan. Int. J. Econ. Environ. Geol. Vol. 9 (4) 26-33, 2018.

20. Hashmi, S. I., Jan, I. U., Khan, S., **Ali, N.** Depositional, diagenetic and sequence stratigraphic controls on the reservoir potential of the Cretaceous Chichali and Lumshiwal formations, Nizampur Basin, Pakistan. 2018. JHES. V. 51, 2A, 2018. 44-65.

**2016**

21. Özcan, E., **Ali, N.**, Hanif, M., Hashmi, S. I., Khan, A., Yücel, A. O., and Abbasi, I. A. (2016). A new Priabonian Heterostegina from the eastern Tethys (Sulaiman Fold Belt, West Pakistan): Implications for the development of eastern Tethyan Heterostegines and their paleobiogeography. *Journal of Foraminiferal Research*, *46*(4), 393–408. https://doi.org/10.2113/GSJFR.46.4.393.
22. Özcan, E., Saraswati, P. K., Hanif, M., **Ali, N.** (2016). Orthophragminids with new axial thickening structures from the Bartonian of the Indian subcontinent. *Geologica Acta*, *14*(3), 283–298.
23. Khan, I., Ahmad, S., Arif, M., and **Ali, N.** (2016). Impact of diagenetic and depositional fabric on reservoir quality; a synthesis from Late Cretaceous and Early Paleocene sandstones in Eastern Sulaiman Range, Pakistan. *Arabian Journal of Geosciences*, *9*(5), 1–22. https://doi.org/10.1007/S12517-016-2372-3
24. Khan, M., Arif, M., **Ali, N.**, Yaseen, M., Ahmed, A., and Siyar, S. M. (2016). Petrophysical parameters and modelling of the Eocene reservoirs in the Qadirpur area, Central Indus Basin, Pakistan: implications from well log analysis. *Arabian Journal of Geosciences*, *9*(5), 1–18. https://doi.org/10.1007/S12517-016-2373-2.
25. Saddique, B. **Ali, N**., Jan, I. U., Hanif, M., Shah, S. A., Saleem, I., Faizi, M. M., Arafat, M. Y. 2016. Petrophysical analysis of the reservoir intervals in Kahi-01 well, Kohat Sub-Basin, Pakistan. JHES, 2016. 49 (1), 30-40.

**2015**

26. Özcan, E., Hanif, M., **Ali, N.**, and Yücel, A. O. (2015). Early Eocene orthophragminids (Foraminifera) from the type-locality of Discocyclina ranikotensis Davies, 1927, Thal, NW Himalayas, Pakistan: Insights into the orthophragminid palaeobiogeography. *Geodinamica Acta*, *27*(4), 267–299. https://doi.org/10.1080/09853111.2015.1026795.
27. Jamal, T., Azhar, R., Haneef, M., Saboor, A., **Ali, N.,** Swati, M. A. F., Uddin, Z. Microfacies and Diagenesis of Chorgali Formation, Buchal Kalan area, Chakwal, Pakistan. JHES, 2015. 48 (1), 14-25.

28. Saboor, A., Ali, F., Ahmad, S., Haneef, M., Hanif, M., Imraz, M., **Ali, N.**, Swati, M. A. F., Zahid, M., Sadiq, I. A preliminary account of the middle Jurassic plays in the Najafpur Village, southeastern Hazara, Khyber Pakhtunkhwa, Pakistan. JHES, 2015. 48 (1), 41-49.

**List of Selected International Conference Contributions**

1. GeoMinKöln 2022, Cologne, Germany. The late Paleogene remnant sea to foreland basin sedimentation along the western margin of the Himalayas: Insights into early Himalayan evolution. *Presenter*
2. GeoBerlin 2023, Berlin, Germany. Kinematic analysis of a left step-over along the dextral Kallar Kahar Fault, Salt Range, Pakistan. *Presenter*
3. EGU General Assembly 2024, Vienna, Austria. First constraints on the timing of structural evolution of the northern Sulaiman fold–thrust belt, Pakistan. *Presenter*
4. Working Group on Sediment Generation Conference 2024, London, UK. On the transition from the remnant Tethys Sea to a foreland basin in the western Himalayas. *Presenter*
5. AGU Fall Meeting 2024, Washington, DC, USA. Dynamic interplay: Tracing sedimentary records alongside tectonic evolution in the western Indian Plate's axial fold–thrust belt. *Co-presenter*
6. Geo4Göttingen 2025, Göttingen, Germany. Reevaluating the India–Asia collision in the Pakistani western Himalayas: Sedimentary evidence for a ~56 Ma onset. *Presenter*
7. 37th Himalaya–Karakoram–Tibet Workshop (HKT 37), Torino, Italy, 2025. Reevaluating the India–Asia collision in the Pakistani western Himalayas: Provenance shifts and sedimentary constraints indicating a collision age of ~56 Ma. *Presenter*
8. 38th IAS Meeting 2025, Huelva, Spain. India–Asia collision in the western Himalayas: Insights from the Mesozoic and Cenozoic sedimentary record of the Indus Basin (Pakistan). *Presenter*
9. AGU Fall Meeting 2025, New Orleans, USA (online). Re-evaluating the India–Asia collision in the Pakistani western Himalayas: Sedimentary evidence for a ~56 Ma onset. *Presenter*

**Comments, Discussions & Replies (Peer-Reviewed)**

**2026**

1. **Ali, N.**, Hanif, M., Mohibullah, M., Khan, A., Orakzai, A., Hashmi, S. I. (2026). Reply to Comment on "On the Transition from Remnant Tethys Sea to Foreland Basin During the Late Paleogene in the Western Himalayas, Pakistan". Accepted for publication in Geological Journal.

**International workshops, courses**

1. Short course *"Detrital geochronology and thermochronology"* at the University of Milano-Bicocca (Italy) from 17th January to 2nd February 2022.
2. *"Introduction to Secondary Ion Mass Spectrometry in the Earth Sciences"* conducted in Potsdam, Germany at the Helmholtz Centre Potsdam, GFZ German Research Centre for Geosciences from 17 to 21 April 2023.
3. *"Introduction to Plate kinematics reconstructions and GPlates"* conducted in Berlin, Germany at the Freie Universität Berlin, Institute of Geological Sciences from 24 to 28 July 2023.
4. Block course on *"2D/3D Kinematic Modeling using Move Suites"* from 9 to 15th September, 2023 at the Geoscience Center, Department of Structural Geology and Geodynamics, University of Göttingen, Germany.
5. Short course on *"Sedimentary Provenance Analysis"* from September 25-29, 2023 at the Geoscience Center, Department of Sedimentology & Environmental Geology, University of Göttingen, Germany.
6. International Winter School 2023 *"Dynamics and Sedimentary Systems in Collisional Zones"*, University of Pavia, Italy 2 – 6 October 2023.
7. Workshop on *"Testing erosional and kinematic drivers of mountain belt exhumation combining fold-and-thrust belt kinematics with thermochronology"* at the Institute of Geosciences, Potsdam-Golm, Germany, from Wednesday 11 to Friday 13 October.
8. Short course on "*MATLAB & Python Recipes for Earth Sciences*" conducted in Potsdam, Germany at the Universität Potsdam, Institute of Geosciences from 16-20 September 2024.
9. Block course "*2D/3D Structural Geological Modelling with Midland Valley's Move software suite*"at Georg-August University of Göttingen, Germany 7-11 October, 2024.

10. Short course on *"SIMS Basics and Stable Isotope Thermometry"* conducted in Potsdam, Germany at the Helmholtz Centre Potsdam, GFZ German Research Centre for Geosciences from 6-7 November2024.
11. Short course "*Detrital geochronology and thermochronology*" edition 2025 (16 hours) at the University of Milano-Bicocca (Italy) from 7th to 17th January 2025.
12. Winter School on *"Cross-Section Construction and Structural Restoration in Fold-and-Thrust Belts"*, conducted at the School of Science and Technology, University of Camerino (UNICAM), Italy, from 15–17 January 2025.
13. *"Research Summer School on Paleogeography"* 2025 (70 workload hours) at the University of Rennes, France from 13 to 4th July 2025.

**Computer Skills**

- Structural and kinematic modelling: Midland Valley MOVE (2D/3D), Geo-Orient, Dips, GeoRose
- Thermochronology: QTQt, HeFTy
- Provenance analysis: IsoplotR, DetritalPy, DZMix, DZStats, DZMDS
- GIS & visualization: ArcGIS, Global Mapper, Google Earth
- Graphics: Adobe Illustrator, CorelDRAW
- XRD interpretation: WinXPOW, Match
- MS Office

**References**

1. Professor Dr. Edward Sobel
*Institute of Geosciences, University of Potsdam, Germany*
Email: *ed@geo.uni-potsdam.de*

2. Professor Dr. Anne Bernhardt
*Department of Geology, Freie University, Berlin, Germany*
Email: *anne.bernhardt@fu-berlin.de*