

Aasif Mohmad LONE (PhD)

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Born: 21st March 1990

Marital status: Married

Nationality: Indian

Assistant professor (Research)

Geology Division

Department of Civil Engineering

Manipal Institute of Technology

Manipal Academy of Higher Education

Karnataka, India.



RESEARCH INTERESTS

Research areas : Climate, Paleoenvironments, Limnology, Earth Surface processes, Human perturbations

Expertise areas : Fieldwork, Proxy records, Sedimentology, Geochemistry, Isotopes, Archival records

Projects: Himalayan monsoon, Human-Environment interactions, Lake Anthropocene, Glacial lakes

EDUCATION

2022-23	Habilitation	Manipal Institute of Technology, India
2014-18	PhD. Geosciences (GPA 9)	Anna University Chennai, India
2012-14	MSc. Earth Sciences (67%)	University of Kashmir, Srinagar India
2009-11	BSc. Geosciences (63%)	University of Kashmir, Srinagar, India

POSITIONS

2023-Now	Assistant professor	Manipal Institute of Technology, India
2022-23	Postdoctoral Fellow	Manipal Institute of Technology, India
2022-22	Research Associate	University of Kashmir, Srinagar India
2021-22	Assistant Professor	University of Kashmir, Srinagar India
2019-21	Postdoctoral Fellow	Indian Institute of Science Education and Research (IISER), Bhopal India

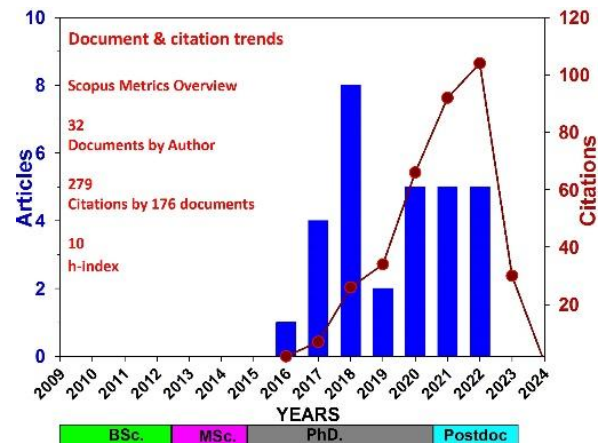
Dr. Lone, is an Assistant Professor of Geology, Department of Civil Engineering, Manipal Institute of Technology, MAHE, Institution of Eminence, Manipal, Karnataka, India. His research interests revolve around the reconstruction of Holocene hydroclimate variability, Human-Environment interactions and assessment of environmental pollution indices from the Indian Himalayan region using sedimentology, biogeochemistry and isotope proxies and tracers from lacustrine and eolian sedimentary sequences. Dr. Lone's passion is to engage in scientific research endeavours where he can effectively apply his knowledge, expertise and skills to contribute effectively for the development of Science and Society. Dr. Lone has published more than 30 articles in various reputed international and national journals of Earth, Environment and Geoscience fields.

GRANTS

2015-17 Anna Centenary Research Fellowship [Holocene paleoclimate in Kashmir Valley, Northwest Himalaya](#)

(A) Publications with peer review process

1. Tran, T; Nguyen, M; Lin, C; Hoang, T; Nguyen, T; **Lone, A. M**; Khedulkar, A. P; Gaballah, M.S; Singh, J; Chung, W. J; Nguyen, D. D (2024). Review on fate, transport, toxicity and health risk of nanoparticles in natural ecosystems: Emerging challenges in the modern age and solutions toward a sustainable environment. **Science of the Total Environment**. Volume 912, 20 February 2024, 169331.
2. **Lone, A. M.**, Dar, R. A; Romshoo, S. A (2024). Paleoclimate, productivity and anthropogenic eutrophication: Drawing inferences from paleolimnological proxy records of the Kashmir Valley, northwestern Himalaya. **Quaternary Science Advances**. Vol. 13. <https://doi.org/10.1016/j.qsa.2023.100128>
3. **Lone, A. M.**, & Balakrishna, K. (2023). Deep and Frozen: High-Mountain Lakes as Sentinels of Regional Limnology and Global Environmental Changes. *Limnol. & Oceanography Bulletin*. Vol. 32. <https://doi.org/10.1002/lob.10559>
4. Fousiya A. A, G.H. Arvind, Hema Achyuthan, S. Chakraborty, R. Chattopadhyay, Amey Datye, Charuta Murkute, **Lone, A M.**, P.M. Mohan, M. G. Yadava (2022). Modulation of the precipitation isotopes by the dynamic and thermodynamic variables of the atmosphere in southern parts of India. **Water Resources Research**. Vol. 58, (8). <https://doi.org/10.1029/2021WR030855>.
5. **Lone, A. M.**, Singh, S. P., Shah, R. A., Achyuthan, H., Ahmad, N., Qasim, A., & Kumar, P. (2022). The late Holocene hydroclimate variability in the Northwest Himalaya: Sedimentary clues from the Wular Lake, Kashmir Valley. **Journal of Asian Earth Sciences**, 105184.
6. Fousiya AA; Alberti; M., Achyuthan; H., Chakraborty; C., Watanabe; T.K., Gandhi;N., Reddy; P., **Lone, A.M** (2022). Anomalous $\delta^{18}\text{O}$ signal in a giant clamshell (*Tridacna maxima*) from the Lakshadweep Archipelago, India: Signature of thermal stress during a coral bleaching event. **Coral Reef**. DOI:10.1007/s00338-022-02263-6.
7. Ahmad, N., Singh, SP., **Lone, A.M.**, Qasim, A., Bhushan, R., Tripathy, G. R., Shah, C. (2022). Historical variations in autochthonous and allochthonous sediment supplies to the largest freshwater lake in Central India. **International Journal of Sediment Research**. <http://dx.doi.org/10.1016/j.ijsrc.2022.02.008>.
8. Neelavannan, K., Sen, I. S., **Lone, A. M.**, & Gopinath, K. (2021). Microplastics in the high-altitude Himalayas: Assessment of microplastic contamination in freshwater lake sediments, Northwest Himalaya (India). **Chemosphere**, 133354.
9. **Lone. A M***, Sharma, S., Achyuthan, H., Shukla, A D., Shah, R A., Sangode, S J., Fousiya, A A. (2021). Climatic implications of late Holocene loess and intervening paleosols, Southern



10. Shah, R.A*, Achyuthan, H, Krishnan, R, **Lone, A.M**, Saju, S, Ali, A, Lone, S.A, Malik, M.S, Dash, C (2021): Heavy metal concentration and ecological risk assessment in surface sediments of Dal Lake, Kashmir Valley, Western Himalaya. **Arabian Journal of Geosciences** 14(3). DOI: 10.1007/s12517-021-06504-w.
11. Shah, R.A*, Achyuthan, H, **Lone, A.M**, Jaiswal, M.K., and Paul D. (2021): Constraining the timing and deposition pattern of loess-palaeosol sequences in Kashmir Valley, Western Himalaya: Implications to paleoenvironment studies. **Aeolian Research**. Volume 49, 100660. <https://doi.org/10.1016/j.aeolia.2020.100660>.
12. Shah, R A*, Achyuthan, H., **Lone, A M.**, Kumar, P., Ali, A., Rahman, A. (2020): Palaeoenvironment shifts during last ~ 500 years and eutrophic evolution of the Wular Lake, Kashmir Valley, India. **Limnology**. <https://doi.org/10.1007/s10201-020-00639-7>
13. **Lone A M.**, Achyuthan H., Chakraborty S*, Metya A, Datye A., Kripalani R H., Fousiya, A A. (2020): Controls on the isotopic composition of daily precipitation characterized by dual moisture transport pathways at the monsoonal margin region of North- Western India. **Journal of Hydrology** 588, DOI:10.1016/j.jhydrol.2020.125106.
14. Shah R A*, Achyuthan H., **Lone A M.**, Lone, S., Malik, M S. (2020): Environmental Risk Assessment of Lake Surface Sediments Using Trace Elements: A Case Study, the Wular Lake. **Journal of the Geological Society of India**. 95, pp.145–151.
15. Shah R A*, Achyuthan H., **Lone A M.**, Kumar S., Baghel P K., Sharma R., Amir M., Singh A K., Dash C. (2020): Holocene palaeoenvironmental records from the high-altitude Wular Lake, Western Himalayas. **The Holocene**. <https://doi.org/10.1177/0959683619895592>.
16. **Lone A M.**, Achyuthan H*, Shah R A., Sangode S J., Baghel P K., Chopra S., Sharma R. (2020): Paleoenvironmental shifts spanning the last ~6000 years and recent anthropogenic controls inferred from a high-altitude temperate lake: Anchar Lake, NW Himalaya. **The Holocene**, (<https://doi.org/10.1177/0959683619865599>).
17. Shah R A*, Achyuthan, H., Sangode, S.J., **Lone, A M.**, Rafiq, M. (2019): Mineral Magnetic and Geochemical Mapping of the Wular Lake Sediments, Kashmir Valley, NW Himalaya. **Aquatic Geochem**. DOI: 10.1007/s10498-019-09364-9.
18. **Lone, A M***. (2019): Rapid sedimentation and organic matter accumulation in the Kashmir Himalayan lakes: a challenge for lake managers. **Current Science**, vol. 117; pp. 23-24.

19. **Lone A M***, Shah R A., Dey R., Ghadi P., Nuruzzama M., Rehman A. (2018): Report on Quantitative Reconstruction and Numerical Methods for Analysis of Past Climate Variability Using Diatoms, **Journal of Geological Society of India**, Vol. 92. pp. 251-252.
20. Fousiya A A*, **Lone A M**. (2018): Cyclone Ockhi and its impact over Minicoy Island, Lakshadweep, India. **Current Science**, vol. 115, No. 5, pp. 819-820.
21. **Lone, A.**, Achyuthan H*, Shah, R A., Sangode, S J. (2018): Environmental magnetism and heavy metal assemblages in lake bottom sediments of Anchar, Srinagar, NW Himalaya, India. **International Journal of Environmental Research**, Vol. 12, pp. 489-502.
22. Shah, R A., Achyuthan, H*, Jose, P., **Lone, AM.**, Geethanjali K. (2018): 'Ferricretes of Sriperumbudur: Micromorphology and Geochemistry', **Journal of Geological Society of India**, vol. 91. DOI: 10.1007/s12594-018-0873-2
23. **Lone, A.**, Shah, R., Achyuthan, H*, Fousiya, A A. (2018): Geochemistry, Spatial Distribution and Environmental Risk Assessment in Surface Sediments of Freshwater Anchar Lake, Kashmir Himalayas. **Journal of Environmental Earth Sciences**, DOI: 10.1007/s12665-018-7242-8.
24. **Lone, A.**, Fousiya, A A., Achyuthan, H*, Shah, R. (2018): Reconstruction of Paleoclimate and Environmental Variability Using Organic matter and C/N Proxy records since the early Holocene period: A Review. **Journal of Geological Society of India**, vol. 91, no. 2, pp. 209-214.
25. **Lone, A.**, Shah, R., Achyuthan, H*, & Rafiq, M. (2018): Source identification of Organic Matter using C/N Ratio in freshwater lakes of Kashmir Valley, Western Himalaya, India. **Journal of Himalayan Geology**, vol. 39, no. 1, pp. 101-114.
26. Sharma, S*, Hussain, A., Mishra, A K., **Lone, A.**, Solanki, T., Khan, M K. (2018): Geomorphic investigation of the late-quaternary landforms in the southern Zaskar Valley, NW Himalaya. **Journal of Earth System Sciences**. DOI: 10.1007/s12040-018-0946-z.
27. **Lone, A.**, Babeesh, C., Achyuthan*, H., Chandra, R. (2017): Evaluation of environmental status and geochemical assessment of sediments, Manasbal Lake, Kashmir, India. **Arabian Journal of Geosciences**, 10:92. DOI: 10.1007/s12517-016-2826-7.
28. Achyuthan, H*, Farooqui, A., Gopal, V., Phartiyal, B., **Lone, A.** (2016): Late Quaternary to Holocene Southwest Monsoon Reconstructions: A Review Based on Lake and Wetland Systems (Studies Carried Out During 2011-2016)', **Proceedings in Indian National Science Congress**, vol. 82, no. 3, pp. 847-868.

29. Babeesh, C., Achyuthan, H*, Jaiswal, M K., **Lone, A.** (2017): Late Quaternary loess-like paleosols and pedocomplexes, geochemistry, provenance and source area weathering, Manasbal, Kashmir Valley, India. **Geomorphology**, vol. 284, pp. 191-205.
30. Shah, R A., Achyuthan, H*, Lone, A M., Ravichandran, R. (2017): Diatoms, spatial distribution and physico-chemical characteristics of Wular Lake sediments, Kashmir Valley, Kashmir. **Journal of the Geological Society of India**, vol. 90, no. 2, pp. 159-168.
31. Babeesh C., **Lone A.**, Achyuthan H*. (2017): Geochemistry of Manasbal Lake sediments, Kashmir: Weathering, Provenance and Tectonic Setting. **Journal of Geological Society of India**, vol. 89, pp. 563-572.

Book chapters

1. Chakraborty, S., **Lone AM.**, Parekh A., and Mohan PM, (2021). Teleconnection between the Indian summer monsoon and climate variability: a proxy perspective. In book Indian Summer Monsoon Variability: El-Nino Teleconnections and Beyond. Elsevier Science publishers. www.elsevier.com/books/indian-summer-monsoonvariability/chowdary/978-0-12-822402-1.
2. Shah , RA, **Lone, A**, Achyuthan H*, A & Ali A, 2017 'Reconstruction of the Indian Summer Monsoon Fluctuations since the Early Holocene Using Lake and Ocean Sediment Cores from Southern India: Extreme events and paleo-environment, In book: Rethinking the past A tribute to professor V.N Misra: Indian Society of Prehistoric and Quaternary Studies (ISPQS), Department of Archaeology, Deccan College Pune.
3. Achyuthan, H*; **Lone, A.M**, Shah, R.A, Fousiya AA. 2019. Climate, C/N Ratio and Organic Matter accumulation: An Overview of examples from Kashmir Himalayan Lakes. Springer publications. (Springer publishers).
4. Shah RA*, **Lone AM**, Ali, A & Rafiq M. Evidences of neotectonics from the Karewa sediments of the Kashmir Valley, NW Himalayas. Centre for Remote Sensing and Geoinformatics Sathyabama University Jeppiaar Nagar, Rajiv Gandhi Road.

TEACHING

2019-20	Introduction to Environmental Geology	IISER Bhopal, India
2022-23	Research Methodology and Technical Communication	MIT Manipal, India

FIELDWORK EXPEDITIONS

2016	04 Weeks	Hamtah Glacier, Glaciology , Geological Survey of India, India
2015	02 weeks	Zanskar Valley, Geology , Dept. of Science and Technology, India
2014	03 weeks	Kashmir Himalaya, Dendrochronology , BSIP Lucknow, India

2013	02 weeks	Ladakh Himalaya, Geology , University of Kashmir, India
2013	04 weeks	Bangalore, India, Geology , University of Kashmir, India

SKILLS

- Excellent research writing skills
- Sedimentological, Geochemical and isotopic analysis of lacustrine sediments.
- Significant knowledge of natural proxy records for paleoclimate reconstruction
- Good mountaineer and excellent field skills for research sample collections.
- Lithological interpretation of lacustrine sedimentary sequences.
- Well acquainted with Origin, SigmaPlot, R-Studio, CorelDraw and QGIS software.

ACHIEVEMENTS & AWARDS

- Anna Centenary Research Fellowship (ACRF) Anna University Chennai.
- Qualified the CSIR -NET examination of December 2017 in Earth Science (AIR 41)
- Qualified the UGC JK-SET examination of May 2016 in Earth Science

LANGUAGES

- **Fluent:** English, Hindi, Urdu, Kashmiri

PROFESSIONAL LIFE MEMBERSHIP(S)

International Society of Aeolian Research
Association of Quaternary researchers
Indian Society of Geomatics

Registration ID: 70-585-
Registration ID: AOQR704006
Registration ID: ISG-L-2306

RESEARCH PROFILES

Research gate : ([Link here](#))

ORCID : ([Link here](#))

Scopus Author : ([Link here](#))

Google Scholar ([Link here](#))

PUBLIC SCIENCE DISSEMINATION

*The researcher, in **collaboration** with different **co-authors**, has previous experience to the **dissemination** of his researcher results/records to a broader **audience** in the form of **journal websites** (published results), **conferences**, and **workshops/webinars**.*

Declaration

I hereby certify that all the information provided above is true and correct to the best of my knowledge. Any false or misleading information provided on this form or any other document may result in the position/desired position being terminated.



Aasif Mohmad Lone