Dr. Sareer Ahmad Mir

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PROFESSIONAL SUMMARY

Dedicated Earth Sciences researcher and lecturer with expertise in GPS Geodesy, Seismology, and Seismotectonics. Skilled in geospatial analysis, field research, and academic instruction. Committed to advancing geological sciences through rigorous research and teaching.

EDUCATIONAL QUALIFICATIONS

Degree	Year	Discipline	Institution
Ph.D.	2023	Applied Geology	University of Kashmir
M.Sc.	2015	Applied Geology	University of Kashmir
B.Sc.	2011	Science (Geology)	University of Kashmir

PHD TOPIC: Seismic Hazard Potential in Kashmir from GPS measurements of Crustal Deformation.

Advisors: Dr. B.S. Bali (University of Kashmir)and Dr. V.K. Gahalaut (CSIR-NGRI, Hyderabad)

PROFESSIONAL EXPERIENCE

- **6**+ **years** of research experience in GPS Geodesy, Seismology, Tectonics, Remote Sensing/GIS, and Engineering Geology.
- **1 year** teaching experience as **Assistant Professor** (**Contractual**) at the University of Kashmir, Srinagar.

AREAS OF SPECIALIZATION

- GPS Geodesy
- Seismology & Seismotectonics



- Geology & Geomorphology
- Geotechnical Studies

TECHNICAL SKILLS

- GIS & Remote Sensing (ArcGIS, QGIS, Erdas Imagine, Global Mapper)
- Geodesy & Seismology (GAMIT/GLOBK, Seisan)
- Data Analysis (MATLAB, Prism-Pad, Grapher)
- Geological & Geotechnical Software (Rockworks, Fault-Kin/Stereonet, Dips, Surfer)
- Visualization & Documentation (Adobe Illustrator, CorelDraw, MS Office Suite)

EQUIPMENT EXPERTISE

- Global Positioning System (GPS)
- Ground Penetrating Radar (GPR)
- Broadband Seismometer
- Laser Distance Meter (LDM)
- Silver Schmidt Rebound Hammer
- Direct Shear Strength Machine
- PSD Hydrometer
- Seismic Micro Tremor
- LED Fluorimeter

PUBLICATIONS IN PEER-REVIEWED JOURNALS

- Sareer Ahmad Mir, Vineet Kumar Gahalaut, Ahsan Afzal Wani, Bikram Singh Bali (2023). Estimation of crustal strain in Kashmir Himalayan region of north India using continuous GPS measurements. *Geological Journal*, 58 (5), 1–10.
- Mohammad Irfan, Sareer Ahmad Mir, Bikram Singh Bali, Ahsan Afzal, Naseer Ahmad Bhat, Nayeem Bhat, Asif Bashir, Muskan Nazir (2024). Unveiling the geoheritage, cultural geomorphology and geotourism potential of Zanskar, NW Himalaya, India. *Geomorphology*, 109354.
- Nayeem Ahmad Bhat, Bikram Singh Bali, Sareer Ahmad Mir, Prakash Kumar (2024). Seismotectonics and seismogenesis of Kashmir Valley, NW Himalaya, India from a local seismic network. *Journal of Earth System Science*, 133 (2), 61.
- 4. Muskan Nazir Dar, Bikram Singh Bali, Sareer Ahmad Mir, Ahsan Afzal Wani (2024).

Fault system dynamics of the Kashmir, NW Himalaya, India using continuous GPS observations and geomorphic evidences. *Journal of Geodynamics*, 161, 102044

- Reyaz Ahmad Dar, Sareer Ahmad Mir, Shakil Ahmad Romshoo (2019). Influence of geomorphic and anthropogenic activities on channel morphology of River Jhelum in Kashmir Valley, NW Himalayas. *Quaternary International*, 507, 333-341.
- Bikram Singh Bali, Ahsan Afzal Wani, Sareer Ahmad Mir, Mohammad Irfan, Danishta Farooq (2025). Rupture length as a proxy for quantifying palaeo-earthquake magnitude for future seismic micro-zonation in Kashmir, NW Himalaya, India. *Natural Hazards*, 1-28.
- Ahsan Afzal Wani, Bikram Singh Bali, Sareer Ahmad Mir, Mohammad Irfan Wani (2025). Kinematics of the Kashmir Himalaya: Inferences from geological and geodetic data. *Geodesy and Geodynamics*. https://doi.org/10.1016/j.geog.2025.02.003
- Bikram Singh Bali, Ahsan Afzal Wani, Gulam Rasool Bhat, Sareer Ahmad Mir (2021). GPR Investigation of Mining Induced Subsidence and its Effects on Surface Structures: A Case Study of Srinagar City, J&K, India, NW Himalayas, *Journal of the Geological Society of India*, 97 (7), 751-759.
- Rakesh Chandra, Javid Ahmad Dar, Shakil Ahmad Romshoo, Irfan Rashid, Imtiyaz A. Parvez, Sareer Ahmad Mir, and Midhat Fayaz (2018) "Seismic hazard and probability assessment of Kashmir valley, northwest Himalaya, India. *Natural Hazards*, 93 (3), 1451-1477.

BOOK CHAPTERS

 Ahsan Afzal Wani, Bikram Singh Bali, Sareer Ahmad Mir, Gowher Mehraj (2022). Geospatial Modeling in Landslide Hazard Assessment, a case study along Bandipora-Srinagar Highway, NW Himalaya, J&K, India. 113-125, CPR Press.

PAPERS UNDER REVIEW

1. **Sareer Ahmad Mir**, Vineet Kumar Gahalaut, Bikram Singh Bali (2024). Seasonal and Secular variations in Crustal Deformation in Kashmir, northwest Himalaya, India, using

GPS observations. *Tectonophysics*, *TECTO16493R1*.

 Sareer Ahmad Mir, Sabeeqa Samad (2025). Assessing the Impact of Land Cover Changes on Soil Erosion in the Sindh Catchment, NW Himalaya, India using Geospatial Technology. *Journal of Mountain Science*, 25-9491.

CONFERENCES

- Sareer Ahmad Mir, and Bikram Singh Bali. Assessing Crustal Deformation and Earthquake Hazard in Kashmir Valley, Northwest Himalaya, India: Insights from GPS-Based Strain Rate Analysis. Indian Geophysical Union 61st Annual Convention on "Advances in Earth System Sciences with special reference to weather and climate, 3-5 December 2024, BHU, Varanasi, India.
- Sareer Ahmad Mir, and Bikram Singh Bali. Identification of Locked and Steadily Slipping areas beneath the Kashmir, NW Himalaya, India using GPS observations.
 8th National Geo-Research Scholars Meet, 22-25 November 2024, Wadia Institute of Himalayan Geology.
- Sareer Ahmad Mir, Bikram Singh Bali, and Vineet Kumar Gahalaut. Crustal deformation revealed by GPS measurements in Kashmir, NW Himalaya, India and the resulting seismic hazard. *36th International Geological Congress*, 2-8 March 2020, Delhi, India.
- 4. Sareer Ahmad Mir, Rakesh Chandra, Shakil Ahmad Romshoo, Irfan Rashid, Imtiyaz Ahmad Parvez, Javid Ahmad Dar, Mohd Adil Bhat, Midhat Fayaz. Geotechnical study of sediments of Srinagar city: Implication for Seismic Hazard Assessment, Kashmir Valley, J&K, India. *13th JK Science Congress*, University of Kashmir; Srinagar, 17-19, April, 2018.
- 5. Sareer Ahmad Mir, Rakesh Chandra, Shakil Ahmad Romshoo, Javid Ahmad Dar, Irfan Rashid, Imtiyaz Ahmad Parvez. Preliminary sedimentological and geotechnical investigations of sediments of Karewa Basin of Kashmir Valley: implication for seismic hazard assessment. 34th Convention, Indian Association of Sedimentologists, Sant Gadge Baba Amravati, University; 19-21, December,

2017, Extended Abstract Volume.

PROFESSIONAL AFFILIATIONS

- Member, Indian Geophysical Union (IGU).
- Member, Indian Association of Geomorphologists (IAG)

DECLARATION

I hereby declare that all the details furnished above are correct to the best of my knowledge.

Sarees

Dr. Sareer Ahmad Mir