CURRICULUM VITAE

Title	Dr.	First Name	ISHFAQ AHMAD	Last Name	PALL

Designation	Assisstant Professor Geology, JK Higher Education Department.	**Photograph**
Address for Correspondance	Department of Geology, Govt. Degree College Kulgam, J&K, India.	
Fathers Name	Gulam Hassan Pall	
Gender	Male	
Date of Birth	XX/XX/1993	
Disability	None	
Contact Number (s)	+91 (0) 7889865304, 9596950300	
Email	ishfaqapall@gmail.com	
Qualifications	B. Sc., M.Sc Applied Geology., Ph.D (Applied Geology), PG Diploma in Disaster Management.	
National Level Examinations Qualified	CSIR-UGC-NET (Lectureship), JKSET Qualified.	

Research Interests

- Surface water hydrology.
- Hydrodynamics of Lakes.
- Isotope hydrology.
- Water and sediment geochemistry.
- Water quality assessment.
- Radon-222 activity and its applications in geosciences.
- Tectonic geomorphology and remote sensing.
- Land use land cover change detection using remote sensing and GIS.
- Fault delineation.

Academic Qualifications

Examination	Board/University	Year	Subjects	Percentage
Integrated Ph. D	University of Kashmir	2018-2024	Origin of Lakes	Awarded
PG Diploma	Indira Gandi National Open University	2018	Disaster Management	64
M. Sc.	University of Kashmir	2013-2015	Applied Geology	71.76
B. Sc.	University of Kashmir	2010-2012	Geology, Mathematics, Physics, English	71.38
12^{th}	Jammu and Kashmir Board of School Education	2009-2010	Mathematics, Physics, Chemistry, English	68.4
JKSET	University of Kashmir	2016	Earth and Atmospheric sciences	Qualified
CSIR-UGC-NET	UGC	2018	Earth and	Qualified

			Atmospheric sciences	

Degree	Title of the thesis	Date of Enrollment	Date of Award	University
M. Sc.	Field Based Glacio-Geomorphic Studies of MACHOI Glacier Valley, NW-Himalayas	01/04/2013	25/09/2015	University of Kashmir
I.Ph.D	Application of ^{222}Rn to study the Origin of Lakes of Kashmir	29/12/2018	25/06/2024	University of Kashmir

Research experience

Title of the project	Name of Supervisor/PI	Duration	University
Geological and geotechnical site characterization and assessment of the seismic hazards of the quaternary sediments of Karewa Group, Kashmir Valley	Dr. Rakesh Chandra and Prof. Shakil A. Romshoo	01/05/2016 to 31/06/2017	University of Kashmir
Geochemical and isotopic study of Dal Lake: Implications to eutrophication	Prof. G. Jeelani and Dr. Noble Jacob	02/11/2018 to 01/11/2021	University of Kashmir

Research Statement

The impacts of changing climate are severely affecting the aquatic as well as terrestrial ecosystems, with former more sensitive to any change within or near to it. Fresh aquatic ecosystems are highly vulnerable to changing climate, at regional as well as global scale due to their dependency on climatic variables including precipitation (form and amount) and temperature, and anthropogenic impacts on the water resources feeding them. As per IPOC Change 2014, the fluctuating temperature and shifting forms of the precipitation (snow/rain) are responsible for the changes in the freshwater resources.In addition, deterioration of quality for drinking and domestic purpose, and scarce surface water for agricultural activities force people to exploit the groundwater to meet the demands. The continuous overexploitation of groundwater and considerable decrease in its recharge rates would lead to decrease in local as well as regional groundwater level drastically. This will adversely disturb the process of groundwater-surface water interactions, which may sift a water body to effluent or influent nature and vice-versa. In this context, the interaction of climate change impacts with anthropogenic pressures may drastically affect the groundwater dependent ecosystems. The groundwater dependenet ecosystems particularly lakes and wetlands will be highly vulnerable to the negative impacts of these disturbances. Therefore, under changing climate, decrease in solid precipitation, narrowed time period of groundwater recharge and overexploitation of groundwater, globally, may change a surface water body from a typical exorheic to endorheic nature, which may disturb its status and health.

I am interested in groundwater-surface water interactions using various environmental tracers including ^{222}Rn, stable water isotopes ($\delta^{18}O$ & $\delta^{2}H$), electrical conductivity and water temperature, and hydrodynamics (water budgeting) of the surface water bodies including lakes and wetlands. The groundwater-surface water interactions are difficult to characterise due to subsurface presence of exchange interface, difficulty to assess spatio-temporal variations in exchange flux, and scale of exchange rate. My research integrates multiple analytical tools including environmental tracers, water table mapping, fluctuations in surface level of a water body, geophysical approaches including groundd penetrating radar (GPR) and electrical resistivity tomography (ETR) in order to understand the processes and controllong factors of groundwater-surface water interactions.

My future research interests are shaped by the emerging tools and techniques in surface hydrology under changing climate. I am especially intrigued about how impacts of the climate change, in combination with anthropic pressures, will affect the hydrologic-, hydrochemical-, and nutrient-cycle of the lakes and wetlands.

Teaching experience

- 4th April 2018–30th October 2018: Taught following courses at the Degree College Shopian, University of Kashmir (Undergraguate level).
  Sedimentary and Economic Geology (**Sub. No. GL320C–Geology**); Structural Geology **(Sub. No. GL321C–Geology)**; Structural Geology Lab. (**Sub. No. GL322C–Geology)**; Geomorphology **(Sub. No. GL323C–Geology)**; Hydrogelogy (**Sub. No. GL324C–Geology).**
- Teaching **Geology** at UG level in Cluster University Srinagar (Amar Singh College) from 28/08/2024 to 07-04-2025.

Additional Training Undertaken

- Attended 7-days National training programme on **"Principles, Tools, and Techniques used in Earthsciences"** from 28th August to 3rd September 2023, organised by Department of Earth Sciences, University of Kashmir in collaboration with Jamia Hamdard, New Delhi. Demonastrated, as a resource person, working and applications of the Ion Chromatography System (ICS) and RAD-7 Radon meter in Earthsciences.
- Participated in 2-days National Workshop on *"Impact of climate change on water resources of Upper Indus Basin- a UIBN initiative"* on 1st and 2nd May 2023, organised by Department of Earth Sciences, University of Kashmir.
- One-week training course on "Earthquake Hazard: Basic Approaches, Field Investigations and Modeling" at SMVDU, Katra, Jammu and Kashmir.
- Three-weeks field training on "Basic Geological Mapping" under Geological Survey of India.
- Field experience to High Altitude Areas (>5000m MSL), part of various Glacier Field expeditions (Glaciers visited, *Machoi, Kolahai, Hoksar*)

Handling instruments and software:

- RAD-7 Radon meter (RAD-AQUA, RAD-H_2O, Soil Gas; *Durridge.co, USA*).
- Ion Chromatography System (ICS-600, DIONEX AQUION; *Thermoscientific*), for major cation and anion analysis.
- LED Fluorimeter (LF-2a), for Uranium analysis, *Quantalase*
- Various types of potable water quality multiparameter probes (*HANNA*).
- Ground Penetrating Radar (GPR).
- Differential global positioning system (dGPS)
- Electronic Total Station (ETS) in high altitude areas for mapping.
- Tools used in geological mapping.
- ArcMap; Global Mapper; Erdas Imagine; Surfer; Origin; Capture; Stable isotope mixing modelling in R (SIMMiR); MS office.

ResearchGate: https://www.researchgate.net/profile/Ishfaq-Pall-2
Googel Scholars: https://scholar.google.com/citations?user=HCYqsnUAAAAJ&hl=en

Publications

Published Papers

1. **Pall, I. A**., Meraj, G. and Romshoo, S.A., **2019.** Applying integrated remote sensing and field-based approach to map glacial landform features of the Machoi Glacier valley, NW Himalaya. **SN Applied Sciences**, 1(5), pp.1-11.

2. Saleem, M., Jeelani, G., **Pall, I. A.,** Ganai, J. and Kumar, S., **2022.** Water and sediment geochemistry of an urban lake: Implications to weathering and anthropogenic activity. **International Journal of Sediment Research**, 37(6), pp.809-822.

3. **Pall, I. A.,** Jeelani, G. and Noble, J., **2023**. Estimation of Lacustrine Groundwater Discharge (LGD) to an urban Himalayan lake using environmental tracers (222Rn, δ18O, EC). **Journal of Hydrology**, 618, p.129145.

Conferences Abstracts/presentations

Best paper presentation award:

Pall, I. A., and Jeelani G., 2023. Role of Groundwater in Sustaining Urban Himalayan Lake Ecosystem: Implications from Natural Tracers (^{222}Rn, δ^{18}o, EC) and Water Table Mapping. *3-day International Conference on Sustainable Development Goals, with specila focus on Climate Change* (8th to 10th August 2023), held at Islamic University of Science and Technology, Awantipora, J and K, India.

Pall, I. A., Saleem M. and Jeelani, G., 2022. Geochemistry of bottom sediments of Dal Lake: implications to provenance and urban pressure. *National Conference on Resource Potential of the Sedimentary Basins and 37th Convention of Indian Association of Sedimentologists (IAS- 2022). 1(52).*

References

(1) **Ph.D Supervisor: Prof. G. Jeelani**, Dean, School of Earth and Environmental Sciences, University of Kashmir, Srinagar, Hazratbal, 190006, Jammu and Kashmir, India. (Email: geojeelani@gmail.com). Ph: +91 (0)7006316171.

(2) **Ph.D co-supervisor: Dr. Noble Jacob,** Scientific Officier G, Isotope Radiation and Analytical Division, BARC, Trombay, Mumbai, India. (Email: noblej@barc.gov.in). Ph: +91 (0) 02225590177.

(3) **M. Sc Supervisor: Prof. Shakil A. Romshoo**, Vice Chancellor, Islamic University of Science and Technology, Awantipora, Jammu and Kashmir, India. (Email: shakilrom@yahoo.com). Ph: +91 9419010924.

(4) **Prof. M S Bhat**, Professor, Department of Geography and Disaster Management, University of Kashmir Srinagar, Hazratbal, 190006, Jammu and Kashmir, India. (Email: msbhatgeog@yahoo.com).

Declaration

I hereby declare that the details furnished above are true to the best of my knowledge and belief. I will be responsible for all the information provided and bear the responsibility for the correctness.

Ishfaq A. Pall