

Lavkush Kumar Patel

Project Scientist-B, Himalayan Cryosphere Programme-Polar Sciences
 ESSO-National Centre for Antarctic and Ocean Research, MoES, Vasco-Da-Gama, Goa
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Research Interests:

Glacier dynamics, Glacial Hazards, Debris covered glacier, Snow water equivalent and Sustainable Management.

Academic Qualification:

2017 PhD Remote Sensing and GIS, MGCGV Chitrakoot, India
 2009 Post Graduate (M. Sc.) Remote Sensing and GIS, MGCGV Chitrakoot, India
 2007 Graduate (B. Sc.) Biological Sciences. Bundelkhand University, Jhansi India
 2004 Intermediate (Biological Science)
 2002 High School (Science Group)

Significant contribution and achievements:

Participated in several Himalayan expeditions (>400 days) and Arctic Svalbard expedition (>150 days), published few articles in peer reviewed journals.

Instruments Proficiency:

Glaciological Mass balance : Terrestrial Laser Scanner (VZ6000), UAV (UX5HP)
 Geophysical measurements : Ground Penetrating Radar (GSSI SIR 30)
 Surveying : GPS (Garmin), DGPS (Leica dual frequency)

Skill and Capacity:

- Glaciological mapping and monitoring, Mass balance (Insitu and Geodetic),
- Glacial lakes monitoring and hazard assessment, Debris cover impact.
- Visual Image Interpretation of satellite data (IRS, Landsat etc.).
- Geo-referencing, Resampling and Digitization in all platforms.

Publications:

- **Patel LK**, Sharma P, Laluraj CM, Fathima T.N., Thamban M, (2018) Geospatial observations of topographical control over the glacier retreat, Miyar basin, Western Himalaya, India. Environmental Earth Sciences, 77:190 doi: <https://doi.org/10.1007/s12665-018-7379-5>.
- Ajit Singh, Laluraj C.M., Parmanand Sharma, **Lavkush Patel**, Meloth Thamban (2017). Export fluxes of geochemical solutes in the melt-water stream of Sutri Dhaka Glacier, Chandra Basin, Western Himalaya. Environmental Monitoring and Assessment 189(11):555. doi: 10.1007/s10661-017-6268-9.
- **Patel LK**, Sharma P, Laluraj CM, Thamban M, Ajit Singh, Rasik Ravindra (2017) A geospatial analysis of Samudra Tapu and Gepang Gath glacial lakes in the Chandra Basin, Western Himalaya. Natural Hazards, 86: 1275. <https://doi.org/10.1007/s11069-017-2743-4>.

CURRICULUM VITAE

- Sharma P, **Patel LK**, Ravindra R, Singh A, Mahalinganathan K, Thamban M (2016) Role of debris cover to control specific ablation of adjoining Batal and Sutri Dhaka glaciers in Chandra Basin (Himachal Pradesh) during peak ablation season, *Journal of Earth System Sciences*, 125(3), 459–473. doi: 10.1007/s12040-016-0681-2.
- **Patel LK**, Sharma P, Thamban M, Singh A, Ravindra R (2016) Debris control on glacier thinning-a case study of the Batal glacier, Chandra basin, Western Himalaya. *Arabian Journal of Geosciences*, 9: 309. <https://doi.org/10.1007/s12517-016-2362-5>.
- **Patel LK**, Tripathi S (2016) A geospatial approach to analyze the impact of population growth on Bundelkhand landscape, Central India, *International Journal of Advanced Remote Sensing and GIS*, 5, pp. 1755-1767.

Work Experience:

- Currently working as a **Project Scientist B** in the Project entitled “the Cryosphere and Climate” in National Centre for Antarctic and Ocean Research, ESSO, MoES, Vasco-Da-Gama, Goa (Since 13 June 2016).
- Two years ten months as a **Research Fellow** in the Project entitled “the Cryosphere and Climate” in National Centre for Antarctic and Ocean Research, ESSO, MoES, Vasco-Da-Gama, Goa (since 05 August 2013- 13 June 2016).
- Six months as a **Photogrammetry Engineer** in Stesalit System Ltd. (04 Feb 2013-31 July 2013).
- Nine months experience as a **Research Intern** under the scheme of “CSIR diamond Jubilee Research Interns Scheme” at CSIR-NISCAIR, Pusa Campus, New Delhi (27 May 2011-20 March 2012).
- One Year three month as a **Junior Research Fellow** in project entitled “Response assessment and processing of knowledge base to serve long term management and use of biodiversity in the Himalaya-Focus on representative protected sites” in GBPIHED, Kosi-Katarmal, Almora (22 February 2010-22 May 2011).

Hobbies: Trekking, Hiking, photography, and cooking.