

### Brief Bio-data

1. Name: **NEELRATAN SINGH**

2. Date of Birth: **15/06/1983**

3. Current Position and Address (Include Email ID and Contact Number)

➤ Senior Scientist

CSIR - Central Institute of Mining & Fuel Research [CSIR-CIMFR],  
[Ministry of Science & Technology, Govt. of India]

Nagpur Research Centre (Mining Technology)

17 C, Telankhedi Area, Civil Lines,

Nagpur - 440001, Maharashtra, INDIA

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4. Educational qualifications: (Graduation and above)

Sl. No.	Degree	Year of Passing	University/Institute	Subject
1.	B.Sc. (Hons.)	2004	A.M.U., Aligarh	Geology
2.	M.Tech.	2007	Dr.H.S.G.V.V., Sagar (Formerly: University of Saugor)	Applied Geology
3.	Ph.D.	2015	University of Delhi, Delhi	Engineering & Environmental Geology

5. Work experience:

Designation	Institute/company	From	To	Nature of Work
Temporary Faculty	National Institute of Technology, Raipur	22 <sup>nd</sup> July 2015	31 <sup>st</sup> Dec 2015	Teaching
Principal Investigator	J.N.U., New Delhi	1 <sup>st</sup> Jan 2016	31 <sup>st</sup> Dec 2018	Research
Scientist C	I.U.A.C., New Delhi	24 <sup>th</sup> July 2019	13 <sup>th</sup> July 2021	Research

6. Work Area(s)/ Specialization:

Geotechnical Investigations for Infrastructure, River Science/River Engineering, Tectonic geomorphology, Active tectonics, Sedimentology, Dendro-tectonics, Dendro-climatology, Dendro-geomorphology, Paleo climate, Application of GIS & Remote Sensing for Geology/Geomorphology, Earth's surface processes and cosmogenic nuclides, Zircon dating for Provenance

7. Major contributions: (Max. 100 words):

The first time we have reported the migration of dunes in Shyok Valley and it is accepted for publication as a book chapter. The present study tries to explain the processes behind the formation of Shyok and Nubra dunes and the reasons responsible for their migration. The

morphometric analysis of the dunes and calculation of the migration rate of the dunes were also prepared. The region experiences cold and arid conditions throughout the year also known as the cold desert of India. According to Köppen and Geiger, such a type of climate is classified as BWk (cold desert). The objective of the present study is to analyze the morphology and migration rate of dunes in this selected part of Shyok Valley, Ladakh Himalaya in detail.

We have done detailed mapping in this Valley (Singh et al., 2019)

#### 8. No. of Research Publications:

- Papers in Journals : 8
- In conference proceedings: 3
- Invited lectures delivered: NIL
- List of best 05 publications
  - Shukla, D.P., Dubey, C.S. and **Singh, N.**, 2012. Neotectonic activity and the origin of Tso Morari Lake using remote sensing and digital elevation model (DEM) derivative techniques. *Geocarto International*, 27(3), pp.249-262.
  - Singh, R.P., Dubey, C.S., Singh, S.K., Shukla, D.P., Mishra, B.K., Tajbakhsh, M., Ningthoujam, P.S., Sharma, M. and **Singh, N.**, 2013. A new slope mass rating in mountainous terrain, Jammu and Kashmir Himalayas: application of geophysical technique in slope stability studies. *Landslides*, 10(3), pp.255-265.
  - Kumar, P., Sharma, M.C., Singh, Y., **Singh, N.**, Kumar, P. and Chopra, S., 2019. Itacolumite (Flexible Sandstone) From Kaliana, Charkhi Dadri District, Haryana, India. *Journal of the Geological Society of India*, 93(3).
  - **Singh, N.**, Ali, S., Raju, N.J., Singh, Y., Rajendra, K., Kumar, M., Deshmukh, B., Jhariya, D.C., Kumar, V., Sharma, M.C. and Chakraborty, E., 2019. Dataset on mapping and morphometry of sand dunes in Nubra and Shyok Valleys, Ladakh Himalaya, India. *Indian J. Sci. Res*, 10(1), pp.11-19.
  - Singh, A.K., Jhariya, D.C., **Singh, N.**, Singh, Y. and Dubey, D.P., 2020, December. Environmental issues in karst terrain: an example from Central India. In *IOP Conference Series: Earth and Environmental Science* (Vol. 597, No. 1, p. 012021). IOP Publishing.
- Books/Chapters authored/edited
  - **Singh N.** et al. (2021). *Accepted* Sand Dunes Morphology and Migration in Shyok Valley, Ladakh Himalaya, India in book published by the CRC Press (Taylor & Francis Group), U.S.A. Editors of the book. Lu Qi (China), Mahesh K. Gaur (India) and Victor R. Squires (Australia).

#### 9. List of 5 Major Contract R&D Projects:

Tectono-geomorphic and climatic controls on the evolution of landscapes in Shyok and Nubra Valleys, Ladakh Himalaya (YSS/2015/001185) Sanctioned by SERB DST New Delhi

10. (a) Name of Patents/Copyrights applied /granted/commercialized: NIL


(b) Technologies/Products /knowhow/Services developed: NIL

11. Honors/Awards/Recognitions/Fellowships/Scholarships/Professional Memberships received:

- Research Fellowship in Science for Meritorious Students (BSR Fellowship) – JRF 2009
- Research Fellowship in Science for Meritorious Students (BSR Fellowship) – SRF 2011
- DST Field Work Grant- 2011
- SERB, DST Yong Scientists (Start-up-grant) YSS 2015
- Travel Grant, GSGS, University of Cologne Germany 2016
- INQUA- Travel Grant 2019
- Member International Association of Geo ethics 2012 & Executive Member IAPG (India) 2015
- National Representative – India, Permafrost Young Research Network (PYRN) 2021

12. Societal Contributions

- I am planning for Societal Contributions. I will update.



(Neelratan Singh)