



**1. Name** : Dr. KHAYINGSHING LUIREI

**2. Specialization** : Morphotectonics and Landslides

**3. Academic Qualification from degree level onwards:**

Year	Examination passed	Name of Board/University	Division
1995	B.Sc. (Hons) Geology	Nagaland University, Kohima, Nagaland	Ist Division
1997	M.Sc. (Geology)	Kumaun University, Nainital	Ist Division
2002	Ph.D. (Neotectonics and Landslides)	Kumaun University, Nainital	*

\* “Active faults and neotectonics investigations in the zones of Main Central Thrust and Chhiplakot Thrusts in northeastern Kumaun with special emphasis on landslide hazard zonation”

**4. Awards**

- i. Senior Research Fellowship CSIR – 2000
- ii. CSIR – UGC Junior Research Fellowship (NET) 2001
- iii. Research Associate CSIR – 2002
- iv. Wadia Institute of Himalayan Geology best paper award 2010

**5. Date of joining the Institute** : 5<sup>th</sup> December, 2003

**6. Present position** : Scientist “E”

**7. List of publication(s) till date:**

1. P.D.Pant and Luirei. K., (1999). Malpa rockfalls of 18<sup>th</sup> August 1998 in northeastern Kumaun Himalaya. Geol. Soc. India. v.54, pp.415-420.
2. P.D.Pant and Luirei. K., (2005). Amiya landslides in the catcment of Gaula River, Southern Kumaun, Uttaranchal. Geol. Soc. India. v.65, pp.291-295.
3. Luirei. K., P.D.Pant and Girish C. Kothiyari (2006). Geomorphic evidences of Neotectonic movements in Dharchula area, northeastern Kumaun: A perspective of the recent tectonic activity. Geol. Soc. India. v.67, pp.92-100.
4. Luirei. K., (2007). Slope failures in the Main Boundary Thrust zone along

Siang valley between Pasighat and Rengging, East Siang District, Arunachal Pradesh. Geol. Soc. India. v.69, pp. 858-861.

5. Luirei. K. and S.S. Bhakuni (2007). Soft sediment deformational structures in the lacustrine deposits of Ziro valley, Lesser Himalaya, Arunachal Pradesh. Geol. Soc. India. v.70, pp.73-78.
6. Pant, P.D., Girish C. Kothyari and Luirei. K. (2007). Geomorphic and geological investigation of neotectonic activity of Saryu River Fault (SRF), a part of North Almora Thrust (NAT) in Seraghat-Basoli area in Central Kumaun, Uttarakhand. Geol. Soc. India. v.70, pp.815-823.
7. Luirei. K. and Bhakuni, S.S. (2008). Landslides along frontal part of Eastern Himalaya in East Siang and Lower Dibang districts, Arunachal Pradesh, India. Geol. Soc. India. v.71, pp.321-330.
8. Luirei. K. and Bhakuni, S.S. (2008). Geomorphic Imprints of Neotectonic Activity along the Frontal Part of Eastern Himalaya, Pasighat, East Siang District, Arunachal Pradesh. Geol. Soc. India. v.71, pp.502-512.
9. Luirei. K. and Bhakuni, S.S. (2008). Ground Tilting in Likhabali area along the Frontal part of Arunachal Himalaya: evidence of Neotectonics. Geol. Soc. India. v.71, pp.780-786.
10. Pradeep Srivastava, Bhakuni, S.S., Luirei. K., and Dilip K. Mishra (2009). Morpho-sedimentary records at the Brahmaputra River exit, NE Himalaya: climate–tectonic interplay during Late Pleistocene–Holocene. Journal of Quaternary Science. V. 24(2) 175–188.
11. Pradeep Srivasata, D.K. Misra, K.K. Agarwal, Bhakuni, S.S., Luirei. K. (2009). Late Quaternary Evolution of Ziro intermontane Lake basin, NE Himalaya, India. Himalayan Geology 30 (2), 175-185.
12. Kothyari, G.C., Pant, P.D., Joshi, M., Luirei. K., Malik, J.N. (2010). Active faulting and deformation of Quaternary landform Sub-Himalaya, India. Geochronometria 37 (2010), pp 63-71.
13. Aier Imtiwapang, Luirei. K., Bhakuni, S.S., Thong, G.T., Kothyari G.C. (2011) Geomorphic evolution of Medziphema intermontane basin and Quaternary deformation in the schuppen belt, Nagaland, NE India. Zeitschrift für Geomorphologie, Vol. 55, pp. 247–265.
14. Girish C. Kothyari P. D. Pant, Luirei. K., (2012). Landslides and Neotectonic Activities in the Main Boundary Thrust (MBT) Zone: Southeastern Kumaun, Uttarakhand. Geol. Soc. India. Vol.80, pp.101-110.
15. Bhakuni, S.S. Luirei. K. and R.K. Mrinalinee Devi (2012). Soft-sediment deformation in the Middle Siwalik sediments of Arunachal Pradesh, NE Himalaya. Himalayan Geology, Vol. 33 (2), pp. 139-145.
16. Luirei. K., S. S. Bhakuni, Pradeep Srivastava, N. Suresh. (2012) Late

Pleistocene – Holocene tectonic activities in the frontal part of NE Himalaya between Siang and Dibang river valleys, Arunachal Pradesh, India. *Zeitschrift für Geomorphologie*, Vol. 56,(4), 477–493.

17. Bhakuni, S.S., Luirei, K., G.Ch. Kothari. (2013). Neotectonic Fault in the middle part of Lesser Himalaya, Arunachal Himalaya: a study based on structural and morphotectonic analyses. *Himalayan Geology*, Vol. 34 (1), pp. 57-64.
18. Luirei, K., Bhakuni, S.S., N. Suresh, Kothyari, G.C., Pant, P.D. (2014) Tectonic geomorphology and morphometry of the frontal part of Kumaun Sub-Himalaya: Appraisal of tectonic activity. *Zeitschrift für Geomorphologie* Vol. 58 (4), pp. 435-458.
19. Luirei, K., Bhakuni, S.S., Kothyari, G.C., (2015). Drainage response to active tectonics and evolution of tectonic geomorphology across the Himalayan Frontal Thrust, Kumaun Himalaya. *Geomorphology* 239, pp58-72.
20. Asthana, A.K.L., Gupta, A.K., Luirei, K., Bartarya, S.K., Rai, S.K. and Tiwari. S.K. 2015. A Quantitative Analysis of the Ramganga Drainage basin and structural control on drainage pattern in the fault zones, Uttarakhand. *Journal of Geological Society of India*. Vol.86, pp.9-22.
21. Lalit M. Joshi, Pitambar D. Pant, Bahadur S. Kotlia, G. C. Kothyari, Luirei, K and Anoop K. Singh. 2016. Structural overview and morphotectonic evolution of a strike-slip fault in the zone of North Almora Thrust, Central Kumaun Himalaya, India. *Journal of Geological Research*. 1-16.
22. Bhakuni, S.S. and Luirei. K. (2016). Normal faults near the top of footwall of Ramgarh Thrust along Kosi River valley, Kumaun Lesser Himalaya. *Current Science*. 110:640-648.
23. Luirei, K., Bhakuni, S.S., Kothyari, S.S., Tripathi, K., Pant, P.D. 2016. Quaternary extensional and compressional tectonics revealed from Quaternary landforms along Kosi River valley, outer Kumaun Lesser Himalaya, Uttarakhand. *Int J Earth Sci (Geol Rundsch)* 105: 965-981.
24. Kothyari, G.C. and Luirei, K. 2016. Late Quaternary tectonics and fluvial aggradation in monsoon dominated Saryu River valley: Central Kumaun Himalaya. *Geomorphology* 268, 159-176.
25. Bhakuni. S.S. and Luirei (2016). Soft-sediment deformation structures in the Middle Siwalik rocks near south of Main Boundary Thrust SE, Kumaun Sub-Himalaya, Nainital. *Himalayan Geology* 37(2), 153-164.
26. Luirei, K., Bhakuni, S.S., Negi S.S (2017). Landforms along transverse faults parallel to axial zone of folded mountain front, southeastern Kumaun sub-Himalaya, India. *Journal of Earth System Science* 126(1), 1-19.
27. Bhakuni, S.S., Luirei K., G. Ch. Kothyari, Imsong, W. 2017. Transverse tectonic structural elements across Himalayan mountain front, eastern Arunachal Himalaya,

- India: Implication of superposed landform development on analysis of neotectonics. *Geomorphology* 282, 176–194.
28. Kothyari, G.C., Kandregula R.S. and Luirei, K. 2017. Morphotectonic records of neotectonic activity in the vicinity of North Almora Thrust Zone, Central Kumaun Himalaya. *Geomorphology* 285, 272-286.
  29. Chaudhury, S., Asthana, A.K.L., Luirei, K., Bartarya, S.K., Sundriyal, Y.P., Arya, P., Kulkarni, S. (2017). Geomorphic evolution of a non-glaciated river catchment in Lesser Himalaya: Response to tectonics. *Quaternary International*, 462, 211-225.
  30. Asthana, A.K.L., Luirei, K., Kothyari, G.C., Pande, P. (2018). Quantitative analysis of Nayar River Basin, Garhwal outer Lesser Himalaya: Implication to neotectonic activity. *Himalayan Geology* 39, 57-67.
  31. Kothyari, G.C., Kandregula, R.S., Luirei, K. (2018). Response: Discussion of ‘Morphotectonic records of neotectonic activity in the vicinity of North Almora Thrust Zone, Central Kumaun Himalaya’ by Kothyari et al. (2017), *Geomorphology* (285), 272–286. *Geomorphology*, 301, 153-166.
  32. Luirei, K., Bhakuni, S.S., Kothyari, G.C. 2018. Geomorphologic study of the valley floor in different tectonic segments along Kosi River valley between South Almora Thrust and Himalayan Frontal Thrust: Kumaun Himalaya, India. *Geological Journal* V. 53, (4): 1500-1515 (July/August) (Online: 4<sup>th</sup> July, 2017) (2.978).
  33. Luirei, K., Lokho, K., and Kothyari, G. 2018. Neotectonic activity along the Churachandpur-Mao Fault in and around Karong, Manipur, India: based on morphotectonics and morphometric analyses. *Arabian Journal of Geosciences*. 11(517), 1-16.
  34. Longkumer L, Luirei, K., J.N. Moiya,, Thong, G.T . 2019. Neotectonic activity in parts of the Schuppen Belt of Mokokchung District, Nagaland: Evidences from morphotectonic features. *Journal of Asian Earth Sciences* 170: 138-154
  35. J.N. Moiya, Luirei, K., Longkumer L, Kothyari G.C., Thong, G.T. 2020. Late-Quaternary deformation in parts of the schuppen belt of Dimapur and Peren districts, Nagaland, India. *Geological Journal*, 55:457-476 .
  36. Luirei, K., Bhakuni, S.S., Limasanen Longkumer, Kothyari, GC., Joshi, LM. 2020. Quaternary landform study in Kosi and Dabka river valleys in Kumaun sub - Himalaya: Implication of reactivation of thrusts . *Geological Journal*, 55:4810–4829.

#### **10. Ph.D. supervised/under supervision:**

Co-supervised two (2) Ph.D. theses in the frontal part of the Schuppen Belt in Nagaland (Nagaland University), and one ongoing (Nagaland University).

#### **11. Training:**

1. M.Sc dissertation supervised: 09 students (M.Sc/M.Tech)
2. Summer internship trainings supervised: 06 students (M.Sc/M.Tech)

**12. Membership:**

1. Life member of Himalayan Geology, Dehradun

**13. Member of important Committees:**

1. Member of High Power Committee constituted by Hon'ble High Court of Uttarakhand, Nainital
2. Member of Implementation Committee constituted by Hon'ble National Green Tribunal, for TCP, Shimla

**14. Reports/Other Documents:**

1. A preliminary report on site visit "to treat the fragile site at Baliyanala, Nainital from further damage" by High Power Committee constituted by Hon'ble High Court of Uttarakhand at Nainital (U.K):- Submitted to the Hon'ble High Court of Uttarakhand at Nainital (U.K.) 2018.
2. A note on the geological investigation of Barsu Landslide, Barsu Village, Uttarkashi District (Uttarakhand) by K. Luirei submitted to the Executive Engineer Irrigation Department Uttarkashi, Uttarakhand. 2019
3. Submission of input regarding -Preparation of Disaster Management Plan by Ministries/Department submitted to DST, New Delhi by K. Luirei, 2019.

**15. a. National/International Collaboration:**

- i. Prof. G.T. Thong, Department of Geology, Nagaland University, Kohima
- ii. Prof. P.D. Pant, Department of Geology, Kumaun University, Nainital
- iii. Dr. G.C. Kothiyari ISR Gandhinagar
- iv. Dr. L. Longkumer Nagaland Forest Management Project, Kohima
- vi. Dr. Vipin Kumar Department of Geology, University of Liege, Liege, 4000, Belgium
- vii. Dr. Imlirenla Jamir, Northeast Space Application Centre, Umiam Meghalaya,

**b. Inside WIHG Collaborator:**

- Dr(s). V. Gupta, N. Suresh, A.K.L. Asthana, Kapesa Lokho, M.S. Mehta, Vinit Kumar, P. C. Sethy