

**Devender Kumar**

**CSIR-NGRI, Uppal Road, Hyderabad 500 007 (India)**

**(<http://scholar.google.co.in/citations?hl=en&user=WDLQ0IYAAAAJ>)**

**Contact Details:**

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**NGRI Research Group:**

- Hydrogeochemistry

**Area of Specialisation:**

- Fission Track Thermochronology, Paleoseismology, Isotope Hydrology

**Educational Attainments:**

- 1999 Ph.D. (Geophysics), Kurukshetra Univ., Kurukshetra (India).
- 1993 M. Tech. (Appl. Geophy), Kurukshetra Univ., Kurukshetra (India)
- 1990 B.Sc. (Gen.), Kurukshetra University, Kurukshetra (India)

**Professional Experience:**

- 18-11-12 Onwards      Principal Scientist, CSIR-NGRI
- 18-11-06 to 17-11-12      Senior Scientist, CSIR-NGRI
- 18-11-02 to 17-11-06      Scientist, CSIR-NGRI, Hyderabad
- 18-11-99 to 17-11-02      Junior Scientist, CSIR-NGRI, Hyderabad

**Current Research Interests:**

- Paleoseismological investigations in earthquake prone zones of India and paleoclimatic studies using <sup>14</sup>C & Optically Stimulated Luminescence (OSL) dating techniques.
- Low Temperature Thermochronology: Applications to the geodynamics of NW/NE Himalayas, Evolution of KG Basin
- Groundwater Hydrology

**Visiting Positions:**

- 04/07 – 08/07 Honorary Visitor, School of Earth Sciences, University of Melbourne, Australia.
- 03/11 – 06/11 Honorary Visitor, School of Earth Sciences, University of Melbourne, Australia.
- 04/12 – 05/12 Honorary Visitor, School of Earth Sciences, University of Melbourne, Australia.
- 09/12 – 10/12 Honorary Visitor, School of Earth Sciences, University of Melbourne, Australia

**Service:**

- **Member**, American Geophysical Union (AGU)
- **Member**, Society of Exploration Geophysicists (SEG)
- **Life Member**, Association of Exploration Geoscientists (AEG)
- **Life Member**, Indian Geophysical Union (IGU)
- **Life Member**, Geological Society of India (GSI)

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### Awards and Honours

- **Endeavour India Executive Award 2007:** By Department of Education, Science and Training (DEST), Government of Australia (Presently DIISR: Department of Innovation Industry Science and Research).

### Selected Peer Reviewed Publications:

1. Reddy, D. V., Kumar, D. and Rao, N. P. (2017). Long-term Hydrochemical Earthquake Precursor Studies at the Koyna-Warna Reservoir Site in Western India. *Jour. Geol. Soc. Ind.*, 90 (06), 720-727
2. Kumar, D, Reddy, D.V., and Pandey, A. K. (2016). Paleoseismic investigations in the Kopili Fault Zone of North East India: evidences from liquefaction chronology. *Tectonophysics*, v. 674, p. 65-75.
3. Sahu, H. S., Raab, M. J., Kohn, B. P., Gleadow, A. J. W. and Kumar D. (2013). Denudation history of crystalline Eastern Indian Peninsula from apatite fission track analysis: linking plume-related domal uplift and the sedimentary record. *Tectonophysics*, v. 608, p. 1413-1428.
4. Reddy D.V., Singaraju V., Rakesh Misra, Devender Kumar, Thomas P.J., K. Kameshwar Rao, and A.K. Singhvi (2013). Luminescence chronology of the inland sand dunes from SE India. *Quaternary Research*, v. 80 (2), p. 265-273.
5. Trivedi, D, Raicy, M C, Kumar, D., Devi, K, Buynevich, I., Srinivasan, P, Iyer, N. R and Nair, R. R. (2012). Sediment characteristics of Tidal deposits at Mandvi, Gulf of Kuchchh, Gujarat, India: Geophysical, Textural and Mineralogical attributes. *Int. J. Geosci. V. 3 (3)*, p. 515-524, doi:10.4236/ijg.2012.33054
6. Jain, A. K., Lal, N. Sulemani, B. Awasthi, A.K., Singh, S., Kumar, R., and Kumar, D., (2009). Detrital-zircon fission-track geochronology of the Lower Cenozoic sediments, NW Himalayan foreland basin: Clues for exhumation and denudation of the Himalaya during the India-Asia collision. *Geological Society of America Bulletin*, V. 121 (3/4), p. 519-535, doi: 10.1130/B26304.1.
7. Reddy, D.V., Nagabhushanam, P., Kumar, D, Sukhija, B.S.; Thomas, P.J., Pandey, A. K., Sahoo, R.N., Ravi Prasad, G.V. and Dutta, K. (2009). The great 1950 Assam Earthquake revisited: field evidences of liquefaction and search for paleoseismic events. *Tectonophysics*, V. 474, p. 463-472.
8. Reddy, D.V, Kumar, D., Saha, D. and Mandal, M. K. (2008). The 18 August 2008 Kosi river breach: an evaluation, *Current Science*, V. 95 (12), p. 1668-1669,
9. Sati, S.P.; Rana, N.; Kumar, D.; Reddy, D.V. Sundriyal, Y.P. (2008). Pull-apart origin of wider segments of the Alaknanda Basin Uttarakhand Himalaya, India. *Himalayan Geology*, V. 29 (3): p. 89-91.
10. Thomas, P.J., Reddy, D.V., Kumar, D., Nagabhushanam, P., Sukhija, B.S. and Sahoo, R.N. Optical dating of liquefaction features to constrain prehistoric earthquakes in Upper Assam, NE India - some preliminary results. *Quaternary Geochronology*, V. 2 (1-4), p. 278-283
11. Sukhija, B.S, Reddy, D.V, Nagabhushanam, P. S. K. Battacharya, A. Jani and Kumar, D. (2006). Characterization of recharge processes and groundwater flow mechanism in fractured granites using isotopic and geochemical tracers. *Hydrogeology Journal*, V. 14 (5), p. 663-674, doi: 10.1007/s10040-005-0461-6

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12. Reddy, D.V, Sukhija, B.S, Nagabhushanam, P. Koti Reddy, G., Kumar, D. and Lachssagne, P. (2006). Soil gas radon survey: a tool in delineation of groundwater potential fractures in granitic terrain. *Journal of Hydrology*, V. 329 (1-2), p. 186-195, doi:10.1016/j.jhydrol.2006.02.033.
13. Sukhija, B. S., D. V. Reddy, Kumar D., and P. Nagabhushanam (2006), Comment on "Interpreting the style of faulting and paleoseismicity associated with the 1897 Shillong, northeast India, earthquake: Implications for regional tectonism" by C. P. Rajendran et al., *Tectonics*, 25, TC2009, doi:10.1029/2005TC001852.
14. Reddy, D.V., Sukhija, B.S., Nagabhushanam, P. & Kumar, D. (2004): A clear case of radon anomaly associated with a micro-earthquake event in a Stable Continental Region. *Geophysical Research Letters*, V. 31, L10609, doi: 10.1029/2004GL019971
15. Sukhija, B.S., Rao, G.V.S.P., Reddy, D.V., Kumar, D., Rao, J.M., Lakshami, K.J.P. and Rao, B. S. (2003). Paleomagnetism of Paleoliquefaction: An aid to Paleoseismology. *Current Science*, V. 84 (3) p. 280-283.
16. Sukhija, B.S., Rao, M.N., Reddy, D.V., Nagabhushanam, P., Kumar, D., Lakshami, B.V. and Sharma, P. (2002). Paleoliquefaction Evidence of Pre-Historic Large/Great Earthquakes in North Bihar, India. *Current Science*, V. 83 (8), p. 1019-1025.
17. Sukhija, B.S., Reddy, D.V., Nagabhushanam, P. and Kumar, D. (2002). Groundwater flow mechanism in fractured hard rocks: Isotope and geochemical evidence. Paper published in proceedings of the International Groundwater Conference (IGC – 2002) on "Sustainable Development and Management of Groundwater Resources in Semi-arid Region with Special Reference to hard-rocks" held during February 20 – 22, 2002 at Dindigul, Tamilnadu (India): Thangrajan, M., Rai, S.N. and Singh, V.S. (eds), Oxford and IBH publishing Co. (P) Ltd, New Delhi-Kolkata. Pages: 375-382
18. Jain, A. K., Kumar, D., Singh, S., Kumar, A. and Lal, N. (2000). Timing, quantification and tectonic modelling of Pliocene – Quaternary movements in the NW Himalaya: evidence from fission track dating. *Earth and Planetary Science Letters*, v. 179, p. 437 – 451.
19. Lal, N., Mehta, Y. P., Kumar, D., Kumar, A. and Jain, A. K. (1999). Cooling and exhumation history of the Mandi Granite and adjoining tectonic units, Himachal Pradesh, and estimation of closure temperature from external surface of zircon. In: Jain, A.K. and Manickavasagam, R.M. (Eds.), *Geodynamics of the NW Himalaya*, Gondwana Research Group Memoir no. 6, p. 207 – 216.
20. Kumar, D., Jain, A. K., Patel, R.C. and Lal, N. (2003). Exhumation of the Himalayan Metamorphic Belt (HMB): Role of crustal – scale folds as revealed from fission track dating. *NEWSLETTER (Deep Continental Studies in India)*, DST (Govt. of India), New Delhi, Vol. 13 (1), p. 18-20.