

Niteshkumar N. Khonde

Scientist 'C'

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EDUCATION

- 2009-2014 Ph.D. in Geology, The Maharaja Sayajirao University of Baroda, Vadodara, India (Mentor: Prof. D. M. Maurya)
- 2006-2008 M.Sc. in Geology, The Maharaja Sayajirao University of Baroda, Vadodara, India
- 2003-2006 B.Sc. (Geology), North Maharashtra University Jalgaon, Jalgaon, India

PROFESSIONAL APPOINTMENTS

- July 2020-present **Scientist C (regular)** – Birbal Sahni Institute of Palaeosciences (BSIP), Lucknow, UP, INDIA
- April 2017-June 2020 Scientist B (regular) – Birbal Sahni Institute of Palaeosciences (BSIP), Lucknow, UP, INDIA
- 2018-2020 Visiting Scientist at State Key Laboratory of Marine Geology, Tongji University, Shanghai, CHINA under the “Open Fund” project.
- 2017- 2018 SERB Indo-US Postdoctoral Research Fellow, Department of Geology & Geophysics, Woods Hole Oceanographic Institution (Woods Hole, Massachusetts), USA. Sponsor: Liviu Giosan
- 2016-2019 Principal Investigator, Science and Engineering Research Board (SERB) - Research Project, Department of Science and Technology, New Delhi, INDIA
- 2014-2016 Post-Doctoral Fellow, Physical Research Laboratory, Ahmedabad, INDIA
- 2014-2012 Council for Scientific and Industrial Research (CSIR)-Senior research Fellow (SRF) at Department of Geology, Faculty of Science, The M S University of Baroda, Vadodara-390002
- 2009-2012 Junior Research Fellow (JRF) in Department of Science and Technology sponsored research project titled, “Subsurface Quaternary

Stratigraphy and tectonogeomorphic evolution of Great Rann of Kachchh, Western India”.

2008-2009

Project Fellow (PF) in Department of Science and Technology sponsored research project titled, “Subsurface Quaternary Stratigraphy and tectonogeomorphic evolution of Great Rann of Kachchh, Western India”.

SPONSORED/POST-DOCTORAL RESEARCH PROJECTS*

Sr. No	Investigators	Title of the Project	Funding Agency	Total Grant	Duration
01	Nitesh Khonde (PI), Liviú Giosan (Co-PI), Shouye Yang (Co-PI)	Holocene monsoon evolution in SE Asia (Myanmar) as reflected by the provenance and weathering of Ayeyawady River sediments	Open Fund Project, Tongji University, China	80000 RMB Or \$ 12000	2018-2020
02	Nitesh Khonde (P.I.) D.M. Maurya (Mentor)	Post LGM sedimentation pattern and environmental changes in the great Rann of Kachchh basin, Western India”	Science and Engineering Research Board (SERB)- Department of Science and Technology (DST), New Delhi	INR 29,92,000 Or \$ 46,000	2016-2019
03	Nitesh Khonde (P.I.)	Late Holocene environments and provenance of the western Great Rann of Kachchh sediments, Western India	Birbal Sahni Institute of Palaeosciences (BSIP), Internal Project	BSIP In-house project	2017-2019
04	Nitesh Khonde; Liviú Giosan (Mentor)	*Evolution of the Indian monsoon rainfall over the past ~23 million years	Science and Engineering Research Board (SERB)- Indo-US Science and Technology	Total grant: INR 27,52,000 or	2017-2018

			Forum (IUSSTF) Sponsored Indo-US Post-doctoral Fellowship	\$42,350	
05	Nitesh Khonde; Ravi Bhushan (Mentor)	*Late Quaternary paleoclimatic and paleoproductivity changes and denitrification history of Oxygen Minimum Zone (OMZ) of Eastern Arabian Sea	Physical Research Laboratory (PRL) Institutional Post-Doctoral Fellowship	No dedicated research grant other than salary.	2014-2016

PUBLICATIONS

In preparation

[19] Holocene sedimentary evolution of the Banni plains in Kachchh Western India: Insights from sedimentological and mineral magnetic studies.

[18] Source of organic matter and land-marine interaction phases in the Great Rann of Kachchh (GRK), western India.

Under review/Communicated

[17] Abhishek Kumar, D. M. Maurya, **Niteshkumar Khonde**, Binita Phartiyal, Md. Arif, Liviu Giosan and L. S. Chamyal. Controls on sedimentary evolution of the marginal marine basin of Great Rann of Kachchh Western India: Insights from sedimentological and mineral magnetic studies. *Under review*

[16] Rajesh Agnihorti, Anjum Farooqui, **Niteshkumar Khonde**, Runcie P. Mathews, S. Sharma, S.K.S Gahlaud, S.K. Manjul, Arvin Manjul and R. Sawlani. Biochemical and Stable isotopic investigation of seven spheroidal food-lumps: A plausible ritual-offering of Indus human civilization era. *Under review*

[15] Upasana S Banerji, Ravi Bhushan; Rajesh Agnihotri; **Niteshkumar Khonde**; Ravi Sawlani; A.J.T Jull. Tracing the sea-level variability during Meghalayan Stage: A study from Western India. *Under review in Catena*

Full length Publications

[14] Akash Padmalal, **Nitesh Khonde**, D. M. Maurya, Mohammedharoon Shaikh, Abhishek Kumar, Naimisha Vanik and L. S. Chamyal. Geomorphic characteristics and morphologic dating of the Allah Bund Fault scarp, Great Rann of Kachchh, Western India. Book Chapter,

Springer. *Invited book chapter In, Tectonics and Structural Geology: Indian Context*; S. Mukherjee (ed.), *Tectonics and structural Geology: Indian Context, Springer Geology*, pg. https://doi.org/10.1007/978-3-319-99341-6_3.

- [13] Liviu Giosan, Thet Naing, Myo Min Tun, Peter D. Clift, Florin Filip, Stefan Constantinescu, **Nitesh Khonde**, Jerzy Blusztajn, Jan-Pieter Buylaert, Thomas Stevens and Swe Thwin. On the Holocene Evolution of the Ayeyawady Megadelta. *Earth Surface Dynamics (ESurf)* 6, 451-466, <https://doi.org/10.5194/esurf-6-451-2018>, 2018.
- [12] **Khonde N**, Singh SK, Maurya DM, Rai VK, Chamyal LS and Giosan L (2017a) Tracing the Vedic Saraswati River in the Great Rann of Kachchh. *Scientific Reports*, 7 (5476) doi:10.1038/s41598-017-05745-8.
- [11] **Khonde N**, Maurya DM and Chamyal LS (2017b) Late Pleistocene–Holocene clay mineral record from the Great Rann of Kachchh basin, Western India: Implications for palaeoenvironments and sediment sources. In Press. *Invited paper in special volume “Third Pole” in Quaternary International*, 443, pp 86-98. <http://dx.doi.org/10.1016/j.quaint.2016.07.024>
- [10] Maurya DM, Tiwari Mamta, Rajawat AS, Kumar H, **Khonde N** and Chamyal LS (2016) Geomorphic characterization of the Banni Plain, Kachchh, using Orbital Imaging Radar (RISAT 1C) and optical remote sensing data. *Spec. Publ. Geol. Soc. Ind.*, No.6, pp.167-177.
- [9] Chowksey V, Maurya DM, **Khonde N** and Chamyal LS (2016) Morphotectonic control on Quaternary sedimentation and landscape evolution, Pachham Island, Kachchh, Western India. *Arabian Journal of Geosciences*, 9:594. doi:10.1007/s12517-016-2625-1
- [8] Subrahmanyam G, **Khonde N**, Maurya DM, Chamyal LS and Archana G (2014) Microbial activity and Culturable bacterial diversity in sediments of the Great Rann of Kachchh, Western India. *Pedosphere*, 24 (1), pp. 45-55. Doi: [http://dx.doi.org/10.1016/S1002-0160\(13\)60079-X](http://dx.doi.org/10.1016/S1002-0160(13)60079-X).
- [7] Maurya DM, **Khonde N**, Das Archana, Chowksey V and Chamyal LS (2013) Subsurface sediment characteristics of Great Rann of Kachchh, western India based on preliminary evaluation of textural analysis of two continuous sediment cores. *Current Science*, 104 (8), pp. 1071-77.
- [6] **Khonde N**, Maurya DM, Singh AD, Das Archana and Chamyal LS (2013) Sediment Characteristics and Foraminiferal Distribution in the Bet Zone of the Great Rann of Kachchh, Western India. *Spec. Pub. Geol. Soc. Ind.*, 1, pp. 146-56.
- [5] **Khonde N**, Maurya DM, Singh AD, Chowksey V and Chamyal LS (2011) Environmental significance of raised rann sediments along the margins of Khadir, Bhanjada and Kuar Bet islands in Great Rann of Kachchh, Western India. *Current Science*, 101 (11), 1429-34.
- [4] **Khonde N**, Maurya DM, Chowksey V, Thakkar MG and Chamyal LS (2011) Tectonic geomorphology of the Chang river basin in the SE Wagad, Kachchh, Western India: *In Geological Processes and Climate Change, Edi. Singh DS and Chabra NL* Chap.13. pp.151-162. ISBN: 10-0230/32192/5.

- [3] Chowksey V, Maurya DM, Joshi Parul, **Khonde N**, Das Archana and Chamyal LS (2011) Lithostratigraphic development and neotectonic significance of the Quaternary sediments along the Kachchh Mainland Fault (KMF) zone, western India. *Jour. Ear. Sys. Sci.*, 120 (6), pp 979-999.
- [2] Chowksey V, Maurya DM, **Khonde N** and Chamyal LS (2010) Tectonic geomorphology and evidence for active tilting of the Bela, Khadir and Bhanjada islands in the seismically active Kachchh palaeorift graben, Western India. *Z.F.Geomorph.*, 54 (4), 467-490.
- [1] Maurya DM, Thakkar MG, **Khonde N** and Chamyal LS (2009) Geomorphology of the Little Rann of Kachchh, W. India: Implication for basin architecture and Holocene palaeo-oceanographic conditions. *Z. F. Geomorph.*, 53 (1), pp. 69-80.

SELECTED CONFERENCE ABSTRACTS (International)

- [12] **N. Khonde**, AD Singh, DM Maurya and LS Chamyal., Holocene foraminiferal assemblage and its environmental significance in the Great Rann of Kachchh (GRK) basin, Western India. 27th ICMS-2019 organised at Banaras Hindu University, Varanasi during 4-6 November 2019.
- [11] **N. Khonde**, DM Maurya, Ravi Bhushan, Liviu Giosan and LS Chamyal, Geochemical studies on late Quaternary sediments from Great Rann of Kachchh (GRK) basin, Western India. 9th International Conference on Asian Marine Geology (9th ICAMG) held at Tongji University, Shanghai, China during 11-12 Oct 2018.
- [10] A. Kumar, DM Maurya, **N Khonde** and LS Chamyal, Environmental Significance of Sediment Grain Size From the Holocene Great Rann Basin at the Western Continental Margin of India. 9th International conference on Geomorphology-2017, New Delhi.
- [9] A. Kumar, **N. Khonde**, DM Maurya and LS Chamyal, Magnetic Susceptibility and Grain Size Variability of the Subsurface Sediments of Great Rann of Kachchh Basin, Western India: Implications for Palaeoenvironments. AGU Fall Meeting, held during 11-15 Dec 2017, at New Orleans, USA.
- [8] **N. Khonde**, Ravi Bhushan, Rajesh Agnihotri, DM Maurya and LS Chamyal, Source of the Organic Matter and Land-Marine Interaction Phases in Great Rann of Kachch Basin, India. AGU Fall Meeting, held during 11-15 Dec 2017, at New Orleans, USA.
- [7] **N. Khonde**, SK Singh, DM Maurya, VK Rai, LS Chamyal and L Giosan, Provenance tracking for terrigenous sediment fluxes to the Northern Arabian Sea: The Great Rann of Kachchh. *In* IODP Workshop on, Land-Ocean Interactions Across the Indian Ocean: Toward Regional Integration of Recent Drilling Results, held during 10-12 July 2017 at Narragansett, Rhode Island, USA.
- [6] Banerji Upasana, Bhushan R, Agnihotri R, **Khonde N**, Sawlani R, Sharma C and Jull ATJ, Sedimentary Sulphur isotopes as tracers for sea level variability at southern Saurashtra coast Gujarat, Western India. Goldschmidt-2016, JAPAN

- [5] **Khonde N**, Maurya DM, Singh AD, Bhushan R and Chamyal LS (2015) Late Pleistocene-Holocene land-marine interaction records from the paleo-gulf environments of Great Rann of Kachchh, Western India. INQUA-2015, held at Nagoya, JAPAN
- [4] **Khonde N**, Maurya DM, Bhushan R and Chamyal LS (2013) Tracking sources of sediments in Great Rann of Kachchh, Western India during Last 17 Ka using Sr and Nd isotope composition. 125th GSA-2013 held at Denver, USA
- [3] **Khonde N**, Maurya DM, Bhushan R, Das Archana, Joshi Parul and Chamyal LS (2013) Late-Pleistocene-Holocene basin filling by Himalayan sediments in Great Rann of Kachchh: A palaeoclimatic perspective. PAGES-2013 held at Goa, INDIA.
- [2] Das Archana, Maurya DM, **Khonde N** and Chamyal LS (2011) Lithostratigraphy of a ~50 m deep core from the Banni plain in Kachchh, Western India: palaeoenvironmental implications. 7th ICAMG held at Goa, INDIA
- [1] **Khonde N**, Maurya DM, Das Archana and Chamyal LS (2011) Lithostratigraphy of a ~60 m deep core from the Great Rann of Kachchh, Western India: palaeoenvironmental implications. 7th ICAMG-2011 held at Goa, INDIA.

CONFERENCE ABSTRACTS (National)

- [7] **Khonde N**, Maurya DM, Bushan R and Chamyal LS (2014) Geochemical studies on sediment cores from the Great Rann of Kachchh, Western India. *In* National Conference on, "Climate change & Environmental Sustainability: Geological Records from Poles to Tropics" held during at Center of advanced study in Geology, University of Lucknow-226007.
- [6] **Khonde N**, Maurya DM and Chamyal LS (2013) Geomorphology of the Great Rann of Kachchh, Western India. *In* IGI-2013 jointly organized by Department of Geology and Department of Geography at The M. S. University of Baroda, Vadodara-390002.
- [5] **Khonde N**, Maurya DM, Das Archana and Chamyal LS (2012) Sedimentary characteristics and clay mineralogy of the subsurface sediments of the Great Rann of Kachchh, western India: A preliminary evaluation from two shallow cores. *In* DST sponsored Field workshop and Brain storming session Organized at KSKV Kachchh University, Bhuj-370001.
- [4] **Khonde N**, Maurya DM, Das Archana and Chamyal LS (2011) Environmental implication of the raised Holocene marine sediments along the margins of the rocky islands within the Great Rann of Kachchh, western India. *In* XXIII ICMG and Intr. Sym. On Global bioevents in earth's history, Organized by Bangalore University; Bangalore-560056.
- [3] **Khonde N**, Maurya DM, Singh AD and Chamyal LS (2009) Microfaunal studies of Holocene sediments of the Great Rann of Kachchh, Western India. *In* Climatic changes during the Quaternary: Special reference to Polar Regions and Southern Ocean; held at NIO-Goa, Goa-403004.
- [2] Chowksey V, **Khonde N**, Maurya DM and Chamyal LS (2009) Tectonic geomorphology of the Bela and Khadir Islands, Kachchh, Western India. *In* National Conference on Quaternary geological Processes : Natural Hazards and Climate Change, Lucknow-226007.
- [1] **Khonde N**, Chowksey V, Maurya DM and Chamyal LS (2009) Neotectonic framework and geomorphic characterization of the Samakhiali-Lakadiya plain and the little rann of

Kachchh, Western India. *In* National Conference on Quaternary geological Processes : Natural Hazards and Climate Change, Lucknow-226007.

GRANTS, SCHLORSHIP & ACHEIVEMENTS

- 2018 Research article published in Scientific Reports Khonde et al. 2017 was among the top 100 most read articles in the year 2017 out of total 1500 articles published by the journal in Earth Sciences.
- 2016-2019 Science and Engineering Research Board (SERB), New Delhi, “Post LGM sedimentation pattern and environmental changes in the great Rann of Kachchh basin, Western India”, (PI): INR 29,92,000 or equivalent to \$ 44,000.
- 2017-2018 Science and Engineering Research Board- Indo-US Postdoctoral Fellowship: \$ 40,500 at Woods Hole Oceanographic Institution, USA
- 2017-2018 Woods Hole Oceanographic Institution, Woods Hole, one time grant for foreign Post-doctoral Fellow \$700.
- 2014-2016 Physical Research Laboratory (PRL) - Post Doctoral Fellowship award INR 70,00,00 or equivalent to \$ 10,200.
- 2012-2014 Council of Scientific and Industrial Research (CSIR) – Senior Research Fellowship (SRF)- INR 4,72,000 or equivalent to \$ 7000.
- 2009-2012 Department of Science and Technology (DST)- Junior Research Fellowship (JRF) INR 4,20,000 or equivalent to \$ 6200.
- 2008-2009 Department of Science and Technology (DST)- Project Fellow (PF)- INR 1,20,000 or equivalent to \$ 1800.

OTHER GRANTS/AWARDS

- 2017 Full funding received for attending IODP workshop on “Land-Ocean interactions across the Indian Ocean: Toward Regional Integration of Recent Drilling Results” held during 10-12 July 2017 at University of Rhode Island, RI, USA.
- 2015 INQUA-travel grant to attend XVIII INQUA-2015 held at Nagoya, JAPAN.
- 2013 INSA-CSIR-DAE/BRNS-CICS Travel Fellowship Programme-2013 to attend 125th Geological Society of America Annual Meeting and Exposition held at Denver, USA.
- 2013 Council for Scientific and Industrial Research (CSIR)-Travel Grant for Research Scholar to attend 125th Geological Society of America Annual Meeting and Exposition held at Denver, USA in 2013

- 2012 Department of Science and Technology (DST)- Young Scientist Travel grants to participate in 5th International School on Foraminifera, at Urbino University, Urbino, Italy-2012.
- 2011 Council for Scientific and Industrial Research -National Eligibility Test for Lectureship (CSIR-NET-LS) -2011

FIELD/LAB BASED TRAINING PROGRAMS

- [5] IODP workshop on “Land-Ocean Interactions Across the Indian Ocean: Toward Regional Integration of Recent Drilling Results” held during 10-12 July 2017 at University of Rhode Island, RI, USA.
- [4] DST-SERB Winter School on, “Quaternary Geology and Climate Change” held during 6th to 19th January 2014 at Department of Geology, Pune University, Maharashtra, INDIA.
- [3] MoES Sponsored “Training Program on Active Tectonics”, held during 21st to 28th December 2013 at Department of Geology, Faculty of Science, The M. S. University of Baroda, Gujarat, INDIA.
- [2] “5th International School on Foraminifera”, held at Urbino University, during 10th to 20th June 2012, Urbino, ITALY.
- [1] DST Training Course on, “Application of radiogenic isotopes in geochronology and geochemistry” held during 15th to 20th December 2008 at Pondicherry University, Puducherry, INDIA.

SKILLS

Software/Statistics	Sigma Plot, Grapher, Photoshop, Corel Draw, MS Office etc
Field/Laboratory	Geomorphic mapping, sediment coring-logging, particle size analysis, micropalaentology (foraminifera), XRD clay mineralogy, continuous XRF and radiography, elemental geochemistry, radiogenic isotopes (⁸⁷ Sr/ ⁸⁶ Sr, ¹⁴⁴ Nd/ ¹⁴³ Nd), stable isotopes ($\delta^{13}\text{C}$, $\delta^{15}\text{N}$, $\delta^{18}\text{O}/\delta^{16}\text{O}$).
Languages	English, Hindi, Marathi, Gujarathi (partially)

Niteshkumar N. Khonde