

MAHESH THAKKAR

Curriculum Vitae

Present Position: *Director-Birbal Sahni Institute of Palaeosciences*

Address:

Director-Birbal Sahni Institute of Palaeosciences
53, University Road, Lucknow-226007(U.P.) INDIA

*Additional Charge of Director: Wadia Institute of
Himalayan Geology, Dehradun, Uttarakhand*

E-mail : mgthakkar@rediffmail.com, mthakkar.geology@gmail.com

Google scholar ID: <https://scholar.google.co.in/citations?user=LinOOq8AAAAJ&hl=en>

Research Gate ID: <https://www.researchgate.net/profile/M-Thakkar>

ORCID ID: <https://orcid.org/0000-0003-2911-4784>



Date of Birth: October 18, 1968

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Citation – 2474

Cited papers: 122

Education

Passing year	Course	Institution / University
1999	Ph. D (Neotectonics/ Geology)	M. S. University of Baroda, Vadodara
1991	Masters of Science (Geology)	M. S. University of Baroda, Vadodara
1989	Bachelors of Science (Geology)	Gujarat University, Ahmedabad

Professional Fellowships

1. Fellow of Association of Petroleum Geologists
2. Fellow of Geological Society of India, F.N. 2227
3. Fellow of Mining Engineers Association of India, F.N. 2328
4. Fellow of the Indian Planetary Society – M. No. 1914 Life Member
5. Fellow of the Indian Society of Remote Sensing –M. No. L-3024
6. Life member of Indian Society of Earthquake Science (ISES)

Work Experience

Job Title	Organization	Period
Director	Birbal Sahni Institute of Palaeosciences	September 2023 onwards
Professor (Geology) HOD	Department of Earth and Environmental Science, Kachchh University	July 2008-September 2023
Dean (Faculty of Science)	KSKV Kachchh University, Bhuj-Kachchh	Sept 2006 to Apr 2011, 2014-2017; April 2023 – Sept.2023
In-charge Registrar	KSKV Kachchh University, Bhuj-Kachchh	Since Oct 2013 to 31-3-16 & 4-1-19 to 24-11-19
Principal (GES-I)	Shri R. R. Lalan college, Bhuj, Kachchh	June 2006 to July 2008
Lecturer (GES-CI-II)	Shri R. R. Lalan college, Bhuj, Kachchh	Dec. 1991 to July 2008

RESEARCH EXPERIENCE

TITLE OF Ph.D. THESIS: “Morphotectonic Evolution of Khari River Basin of Central Kachchh Highland” Mentor: Prof. L. S. Chamyal

DISERTATION TITLE: “Granitoids of Higher Kumaun Himalaya”

Ph. D. Students Guided and registered:

1. Dr. Bhanu Goyal, (2010) **Awarded:** “*Paleoseismic studies in Eastern Kachchh, Western India*”
2. Dr. Anil Gor, (2012) **Awarded:** “*Geotectonic Characterization of Kachchh (E) basin, Western India: Based on Earthquake Geophysics*”
3. Ms. Mamata Ngangom (2013) **Awarded:** “*Late Quaternary Landform evolution: Role of climate and tectonics in the Great Rann of Kachchh, Western India*”
4. Mr. Gaurav Chauhan (2012) (INSPIRE fellowship) **Awarded:** “*Structural and Neotectonic significance of Median High of Kachchh Rift basin, western India*”
5. Mr. Arjav Shukla (2012) (CSIR fellowship) **Awarded:** “*Site Response study and Seismic Hazard Mitigation in Some urban areas of Kachchh intra-plate basin*”

6. Ms. Archana Das (2014) **Awarded:** “*Fluvial Response to Climate, Tectonics and Sea level Changes during Late Quaternary period on the Southern Kachchh Mainland, Western India*”
7. Ms. Zakhana Shukla (2015) **Awarded:** “*Study of extreme climatic events and their hazard potentials in Kashmir valley using RS and GIS*”
8. Mr. Nisarg Makwana (2015) **Awarded:** “*High Resolution Palaeoclimatic Variability Archived by the Great Rann of Kachchh during the Middle to Late Holocene Period*”
9. Mr. Adil Husain Padder (2014) **Awarded:** “*Quaternary climate and tectonic characterization of Great Himalayan Ranges of Kashmir valley*”
10. Mr. Kaustubh Sane (2014) **Awarded:** “*Bedrock gorges of mainland Kachchh, Western India: Hydrodynamics and Palaeoclimatic significance through geological time*”
11. Mr. Yash Shah (2019) **Awarded:** “*Aquifer zonation along the Mundra-Gandhidham belt, Kachchh, Western India Using Hydro-Geological data and Remote Sensing*”
12. Ms. Hemashri Thacker (2019) **Awarded:** “*An appraisal of groundwater quality and quantity across Katrol Hill Fault (KHF), Kachchh, Western India*”
13. Mr. Suraj Bhosle (2019) **Awarded:** “*Taxonomy and Biostratigraphy of Upper Jurassic Ammonoids of Zanskar and Spiti regions of the Indian Himalaya*”
14. Mr. Abhishek Lakhote (2019) **Awarded:** “*Active Fault Mapping and Paleoseismic Investigation along South Wagad Fault Zone of Kachchh Basin: An approach to Seismic Hazard Assessment in Western Continental Margin of India*”
15. **Co-Guide:** Ms. Suruchi Patel (2019) **Awarded:** *Ichnology and sedimentology of Mesozoic deltaic system, Kachchh basin western India*”
16. **Co-Guide:** Mr. Darshit Padia (2019) **Awarded:** *Ichnology and Sedimentological Model of Late Holocene Sediments of Great Rann of Kachchh, Gujarat, Western India*
17. **Co-Guide:** Dr. Ketan Chaskar: (2019) **Awarded:** “*Sedimentology and Paleoenvironment of the Upper Jurassic strata of Spiti and Zanskar Valley of the Indian Himalayas*”
18. Mr. Babulal Vaghela (2019): Registered: “*Delineation of deformational history of Central Mainland of Kachchh using micro-structure and joint pattern studies in various lithounits*”
19. **Co-Guide:** Ms. Nazim Deori (2019) Registered: “*High resolution Biostratigraphy and depositional environment of Cenozoic succession of Kachchh Basin, Western India, Gujarat*”
20. **Co-Guide:** Ms. Kamna Sharma (2019) Registered: Banasthali University:
21. **Co-Guide:** Ms. Pooja Chauhan (2020) Registered: Banasthali University:
22. **Mr. Sanjay Kumar Bhuiyan (2024):** Registered: KSKV Kachchh University
23. **Mr. Dayesh Parmar (2024):** Registered: KSKV Kachchh University
24. **Mr. Amborish Hazarika (2024):** Registered: KSKV Kachchh University

Summer and Winter Research Fellowship – mentoring

1. Ms. A. M. Gopika, Thiruvananthapuram: **IASc – INSA-NASI** summer research fellowship, 2019
2. Mr. S. S. Dharani Balan, Pondicherry Uni. Pondicherry, **IASc – INSA-NASI** summer research fellowship, 2021
3. Ms. Palak Shah, Department of Geology, Xavier’s College, Mumbai, Winter Internship, 2021
4. Mr. Aditya Dharaiya, Department of Geology, Savitribai Phule Pune University, Pune, Summer internship 2023

Expert and Consultant:

1. Expert on behalf of GSDMA – Gujarat Govt. at Smutivan Earthquake Museum a Dream Project of Honorable Prime Minister.
2. Expert and Consultant – Meroform (Noida) and Design Factory – at Smrutivan Earthquake Museum, Bhuj-Kachchh

Editor: in Special Publication: *Journal of Geological Society of India 2016: Springer: Title: Recent Studies on the Geology of Kachchh*

Guest Editor: *Springer’s Geoheritage: Special Issue on: Indian Geoheritage from Precambrian to the Present*

Academic Editor: Intech Open Book Series:

Awards Granted

RESEARCH PROJECTS (On Hand):

1. **PI:** Assimilation of Remote Sensing and Hydrogeological data for aquifer zonation vis a’ vis determining structural and lithological control over groundwater quality and quantity in Central –southern Kachchh mainland, Western India, submitted to ISRO-RESPOND (20.64 lakh)
2. **Principal Investigator:** Component-V, **Integrated project on Active Fault Mapping in Kachchh Basin, Western India** (cost: INR 35.5 lakh)
3. **Co-PI:** Component-VII, **Integrated project on Active Fault Mapping in Kachchh Basin, Western India** (cost: INR 20 lakh)

4. **Co-PI** in SERB-DST, New Delhi under Extra Mural Scheme- **Land-sea interactions along coastal wetlands of Gujarat, western India: mangroves response to climate and sea-level changes during the Holocene** – PI-Dr. Shilpa Pandey-BSIP-Lucknow (approx. total cost- 50 lakhs)

RESEARCH PROJECTS (Applied):

5. **PI:** 3D Digitization of Geoheritage Sites of Kachchh Paleo-rift Basin, Western India, submitted UNDER the Science and Heritage Research Initiative (SHRI) Scheme of SERB.
6. **Co-PI:** “*Understanding The Aridity And Desertification In Kachchh Through Climate And Geology*” submitted to the Department of Climate change, Government of Gujarat (PI-Dr. G. D. Chauhan)
7. **Co-PI:** “*Establishment of Geoinformatics based online repository and web portal for fossil identification through image analysis*” with the other **co-PIs:** Dr. Ajay Kumar Singh (Dept. of Bioinformatics, Central University of South Bihar, Gaya), Dr. Krishna Kumar Ojha (Dept. of Bioinformatics, CUSB, Gaya), Prof. Dharendra Kumar Pandey (Dept. of Geology, CUSB, Gaya), & Dr. Jitendra Kumar Sharma (Dept. of Geology, University of Rajasthan) **PI:** Dr. Asheesh Shanker (Dept. of Bioinformatics, CUSB, Gaya)
8. **PI:** Geochemical and Socio-economic significance of Basalt and allied rocks of Babra Region, Saurashtra: Gujarat, submitted to Govt. Of Gujarat (cost 73.3 lakh)

RESEARCH PROJECTS (Completed):

1. **Project-Director** *Restoration of the main wood fossil park & other miscellaneous work near Dholavira, Khadir, Kutch:* A fossil restoration project: funded by Gujarat Tourism (Rs. 21,00,000)
2. **Project Investigator:** Fossil collection project for Dholavira Fossil park museum funded by the Collectorate and Gujarat Tourism. **(Rs.1,10,000)**
3. **Principal Investigator** in a CSIR Research Project (EMR Scheme) on “*Estimation of site response and seismic hazard in the Kachchh seismic zone, Gujarat, India*” No. 23(0019)/11/EMR-II. **(Sanctioned on 8-04-2011)** (Amount: **73,10,000.00 INR**)
4. **Principal Investigator** in a DST Research Project on “*Shallow sub-surface signatures of Neotectonic activity along the transverse fault system of Kachchh, Kachchh Window, western India*” No. DST/ SR/S4/ES- 21/Kachchh Window/P3 (Amount: **7,12,000.00 INR**)
5. **Co-Principal Investigator:** “*Revisiting the source zone of the 1819 Rann of Kachchh earthquake to constrain the deformation characteristics,*” communicated to the MoES (PI: Prof. Kusala Rajndran) (other Co-PIs: Dr. C. P. Rajendran, Prof. L. S. Chamyal, Prof. A. K. Singhvi and Dr. Navin Juyal). **(Sanctioned in 2011)**
6. **Principal Investigator** in a DST Research Project on “*Delineation of Quaternary Tectonic History of Kachchh from the Sediments of Great Rann, Western India*” No. SR/S4/ES-TG/02/2008. (Amount: **14,60,000 INR**)
7. **Principal Investigator** in Students’ SCI-TECH project on “*Correlation of 2001 Bhuj Earthquake deformation features with the existing Geological structures in Epicentral region: A hazard mitigation perspective*”(Amount: **25,000 INR**)
8. **Principal Investigator** in Students’ SCI-TECH project on “*Holocene and Late Pleistocene paleoclimatic study around Dholavira Harappan Settlement*” **(Amount: 25,000 INR)** Date of sanction 14-03-2011
9. **Principal Investigator** in a DST Research Project on “*A comparative study between the 1819 Kachchh and 2001 Bhuj Earthquakes based on Deformation Patterns and Ground Liquefaction*” No. DST/23(257) SU/2001
10. **Principal Investigator** in a DST Research Project on “*Preliminary documentation of ground deformation and tsunami effects at Andaman and Nicobar Islands and Eastern Coast of India (in connection to the 26th December, 2004 Sumatra Earthquake)*” No. DST/23(505) SU/2005
11. **Project In-charge:** Dr. James Zollweg's project of *Telemetric Seismic Networking in Kachchh*, a project of Boise State University, Idaho, U.S.A., funded by the NSF (National Science Foundation) and The National Geographic Society, U.S.A.
12. **Co-investigator** in a DST project regarding “*Reconnaissance survey of the ground failure during 2001 Gujarat (Republic Day) Earthquake*” with Dr. C. P. Rajendran and Dr. Kusala Rajendran, scientists, CESS, Trivendrum.
13. **Co-Principal Investigator:** “*Tectonics of Andaman Nicobar Arcs: Constraints from Coral Proxies*”, Communicated to the DST-New Delhi. Jointly proposed from the IISc – Bangalore (Scientists: Prosenjit Ghosh **(Sanctioned in 2010)**)

Invited Talks/ Expert lectures/ Key note addresses

1. “*Geodiversity of Kachchh rift-basin qualifies it as A Potential National Geopark*” (21-03-2023): An invited talk in the Refreshers’ course, UGC-HRDC, Kumaun University, Nainital.
2. “*Dholavira: Vestige of Sindhu Saraswati Civilization*” (17-03-2023): An invited talk in the Refreshers’ course, UGC-HRDC, Kumaun University, Nainital.
3. “*Geological Evolution of Kachchh paleo-rift basin*” National level conference/field workshop on “*Kachchh Paleo-rift basin: An Ideal Tectonics and Sedimentary Package for Indian Geoheritage*” at the Dept. of Earth and Environmental Science, KSKV Kachchh University on 11-14 February 2023.
4. “*Climate and Tectonic Perspectives to the Origin of Landscapes: A case study of Kachchh, Western India*” (31-01-2023) A special lecture at the Department of Geology, Goa University, Goa

5. **“Tectonics of Kachchh Paleo-rift basin”** (01-02-2023) A special lecture at the Department of Geology, Goa University, Goa
6. **“Role of Geology in drought management: Kachchh context,”** (06-01-23) Tier – II training of Central Ground water Board, Western Region, Department of Earth and Environmental Science, KSKV Kachchh University, Bhuj-Kachchh (6-7 January 2023)
7. High End Workshop (KARYASHALA) on **“Disaster and Climate-Resilient Pathways: Adaptation, Mitigation and Sustainable development”** 7-13 December 2022, BSIP, Lucknow
8. **“Active Fault research in Kachchh: Do we use this valuable data for Disaster Prevention and preparedness?”** (11-12-22) High End Workshop (KARYASHALA) on “Disaster and Climate-Resilient Pathways: Adaptation, Mitigation and Sustainable development” 7-13 December 2022, BSIP, Lucknow
9. **“Risk and Vulnerability Assessment to Tsunami and coastal Hazards in India”** (13-12-22) High End Workshop (KARYASHALA) on “Disaster and Climate-Resilient Pathways: Adaptation, Mitigation and Sustainable development” 7-13 December 2022, BSIP, Lucknow
10. **“Geodiversity of Kachchh basin qualifies it as A Potential National Geopark”** (10-10-2022): An invited talk at the 1st International Geodiversity Day and 6th Int’l Geoethics day Celebration and Group Discussion on Geoheritage Conservation and Geoethics at INSA, 10-11 October, 2022.
11. **“Geodiversity of Kachchh basin: A potential of National Geopark”** (06-10-2022): An invited talk at the Department of Geology, Fergusson College, Pune on the occasion of International Geodiversity Day Celebration.
12. **“Geoheritage of Gujarat: From Precambrian to the Present”** (02-10-2022): An invited talk at the brainstorming session and conference on “Geoheritage of Mehrangarh Ridge” at Mehrangarh Fort. Jodhpur.
13. **“Rann and Deserts: Their origin and Historical Implications”** an invited speech at a workshop/ conference on “Combating Desertification & an appraisal on Desert Economy” (28-09-2022): Govt. of Gujarat Climate Change Department initiative at KSKV Kachchh University.
14. **“Tectonic Geomorphology of Kachchh Basin”** (16-09-2022): Course works-for Research scholars, S. P. Pune University, Pune.
15. **“Earth as a Dynamic Planet”** (30-07-2022) “Orientation Program” Human Resource Development Center, University of Hyderabad, Online lecture.
16. **“Advances in earthquakes and Active Fault Research in Kachchh: Do we use this valuable data?”** An invited talk at the National Symposium on **“Understanding and Combating Earthquake and Landslide Hazards”** with Special Reference to Bhuj Earthquake and Advances in Earthquake Science-2022, organized by ISR and ISES - 21-23 July 2022.
17. **“Dholavira: Vestige of Sindhu Saraswati Civilization”** An online talk organized by “The History Enthusiasts” Hubballi, Karnataka: 7th May 2022: Also available on you tube: <https://www.youtube.com/watch?v=4HwFC7GxxCE>
18. **“Rann-An economic corridor from Harappan to Shri Narendra Modi”** An invited talk at one day brain storming session on: Desert Economics – A step towards making \$ 5 trillion Economy: on 11th April 2022: Department of Economics KSKV Kachchh University: DoE sponsored program.
19. **“Seismic and Active Fault Research in Kachchh: Do we use this valuable data?”** An invited talk at the training cum conference “Disaster Risk Reduction & Resilience: Policies and Management” Organized by: Dept. of Geology, BBAU – Lucknow and NIDM, 7-9 March 2022.
20. **“Climate and Tectonic Perspectives to the Origin of Landscapes of Kachchh, western India?”** An invited talk Govt. Science College, Mandvi, under the program: Sarjanatmak ABhiviyakti Dhara, 22nd February 2022.
21. **“Climate and Tectonic Perspectives to the Origin of Landscapes of Kachchh, western India?”** An invited talk at the University of Helsinki – under the program-course of Climate Change and Global Justice – Global Development Studies (MA): 9th February 2022.
22. **“What Do We Learn from 2001 Bhuj Earthquake?”** An invited talk at NIDM, Delhi-KSKVKU joint awareness seminar on World Disaster Risk reduction day – 13th October 2021.
23. **“Dholavira: Sindhu Saraswati Sabhyata nu Ek Boltu Nagar”** A Global talk at Gujrati Sahitya Foram: 3rd October 2021: Also available on you tube: http://youtu.be/Z0pn3M3xu_M
24. **“Applications Of Physics In Geosciences”** (14/09/2020) UGC Sponsored 1st Online Refresher Course in Physics from 07/09/2020 to 20/09/2020 for University and College Professors, Gujarat University.
25. **“Earth as a Dynamic Planet”** (27-04-2020) “Anusandhan” a Webinar on "Research Methodology and Frontiers in Science" Department Of Physics, Saurashtra University, Rajkot, Gujarat Science Academy
26. **“Geotectonics”** (16-04-2021) Faculty exchange program at Government Science College, Mandvi.
27. **“Tectonics of Kachchh paleo-rift basin”** (18-04-2021) E-lecture series on Structural Geology and Tectonics, organized by the Structural Geology and Tectonic Studies Group India , Rock Deformation and Structures and Central University of Kerala.
28. **“Role of Geology in Drought management-Kachchh Context”** (17-06-2021), “Role Of Geosciences In Drought Management: Issues, Challenges And Opportunities”, School Of Environmental And Earth Sciences

Workshops and Group Discussions

- 1 Participated in a national seminar on “Space Quantum Frontiers” organized by the SAC-ISRO-Ahmedabad and DTDI-ISRO-HQ- Bengaluru – 19th May 2022.
- 2 Participated at an international workshop on “*Tsunami Geology*” organized by the Department of Geology, **Anna University, Chennai**, sponsored by US-IOTWS Program and CPEES, Anna Uni. Chennai from 30th November to 7th December 2006. Title for the presentation “*Coastal Devastation and Geographic Changes at Great Nicobar and Nancowrie group of Islands of Nicobar District of India: in connection to 26th December 2004 Sumatra- Andaman Earthquake and Tsunami*”
- 3 Participated at a DST sponsored National Group Discussion Meet on “*Active Tectonics in Western India*” at the Department of Geology, M. S. University of **Baroda, Vadodara** during 20th to 21st March 2003.
- 4 Participated at an *International workshop on "Earth System Processes Related to Gujarat Earthquake Using Space Technology"* held at IIT, **Kanpur** during 27th to 29th January 2003.

Conferences, Seminars:

1. Presented a paper on “*Mapping of Active Fault related morphotectonic features along the western segment of South Wagad Fault, Kachchh, Western India*”, 34th Convention, Indian Association of Sedimentologists, Amravati University 19-21 December 2017.
2. Presented a paper on “*Geomorphology of Active Intra-plate and passive margin Kachchh basin in western India*” 9th International conference on Geomorphologists, Organized by IIG; 6-11 November, 2017, New Delhi.
3. Presented a paper on “*Neotectonic Behavior of Transverse Faults in Central Mainland Kachchh, Western India: Case Studies of Kodki, Ratiya and University Faults*”, 4th International Conference on Geology and Geoscience, 26-27 July 2017, Dubai.
4. Presented a paper on “*Late Quaternary global climate and Kachchh intra-plate tectonics have engendered a young geological basin: the Ranns of Kachchh, Western India*”; 14th Annual Meeting of the Asia Oceania Geosciences Society, Singapore, 6 to 11 August 2017.
5. Presented a paper on “*Landscape Evolution of Kachchh palaeo-rift basin, Western India: Quaternary Climate and Tectonic Odyssey*”, 35th International Geological Congress, Cape Town, South Africa, 27 Aug to 2 Sept 2016
6. Presented a paper on “*Review of Paleoseismic and active tectonic studies and Earthquake hazard potential in Kachchh paleo-rift basin, Western India*”, 30 May-3 June 2016 7th PATA Days, Crestone, USA
7. Presented a paper on “*Earthquake Hazard Assessment in Kachchh Seismic Zone, Gujarat: Using Ambient Noise Measurement Techniques*” at an international congress on Environmental Research at Aurangabad during 19-21 December, 2013
8. Presented a paper on “*Science of ‘Ragas’: The Control on Living Beings to the Cosmic Elements*” at an international congress on Environmental Research at Aurangabad during 19-21 December 2013.
9. Presented a paper on “*Recent Development in Quaternary stratigraphy of the Great Rann of Kachchh western India*” on an international conference on ‘Recent Developments in Stratigraphy’ (ICRDS-13) during 14-16 December 2013
10. Presented a paper on “*Liquefaction characteristics in active intra-plate seismic zone: A case study of 2001 Bhuj earthquake, Kachchh, Western India*” at an International conference (IUGG-GRC) on “Extreme Natural Hazards and their Impacts” at Chapman University, **CALIFORNIA, USA** (8-11 December 2012)
11. Presented at a national conference NCLA-National Conference on Luminescence Application at CGCRI and IACS-Kolkata 19th to 21st February 2009. Presentation: “*Luminescence Dating of Fault Gouge of Kodki Transverse Fault Within The Khari River Basin of Central Mainland Kachchh, Western India*”
12. Presented at a seminar on “*Tectonic Geomorphology Landform Evolution and Quaternary Tectonics*” at Wadia Institute of Himalayan Geology, Dehradun. Title of presentation: “*Morphological Response to Quaternary tectonic activity along various fault system in Kachchh, Western India*” on 10th and 11th November 2006.
13. Presented at a seminar on ‘*Paleoseismology and Active Faults in Gujarat*’ organized by the *Institute of Seismological Research*: Department of Science and Technology, Govt. of Gujarat, Gandhinagar on 16th September 2006.
14. Presented at an International Conference “*10 Years of Paleoseismology in the ILP: Progress and Prospects.*” for the Poster presentation on my study on 2001 Bhuj Earthquake: Held at **Kaikoura, NEW ZEALAND** during 17-21 December, 2001
15. Attended a district level seminar on **ICMAM** (Integrated Coastal and Marine Area Management) Plan for Gulf of Kachchh held at **BHUJ** on 7th Sept. 2000.
16. Presented at a seminar on “*Fossil Occurrences in Lignite bearing Tertiary Formations in Gujarat*” held by Mining Engineering Association of India - Ahmedabad Chapter at **Panandhro**, Kachchh on 13th April 2003

WORKSHOP COORDINATED:

1. Organized a one day **“MuseMeet”** for the archaeologists, geoscientists and historians on 21-02-2023 at the Department of Earth and Environmental Science, KSKV Kachchh University. Main Speaker: Dr. Nandan Shastri, an expert in Museums.
2. Organized a National level conference/field workshop on **“Kachchh Paleo-rift basin: An Ideal Tectonics and Sedimentary Package for Indian Geoheritage”** at the Dept. of Earth and Environmental Science, KSKV Kachchh University on 11-14 February 2023.
3. Organized a workshop/ conference on **“Combating Desertification & an appraisal on Desert Economy”** on **28th September 2022** at KSKV Kachchh University under the umbrella of Panchamrit for Climate Change: Govt. of Gujarat Climate Change Department initiative.
4. Organized Training Programme on **“Karyotyping & FISH, CHNS analysis and Stereozoom microscope operation”** at Department of Earth and Environmental Science, KSKVKU, Bhuj-Kachchh, 1-7 August, 2022: Under the STUTI program of DST-FIST, funded by the DST-STUTI-IIT Gandhinagar.
5. Organized 2nd Task Force MoES Meeting of **“Active Fault Mapping – Kachchh Region”** at KSKV Kachchh University during 24 – 25 May 2022.
6. Convened **“International Online Meet on 2001 Bhuj Earthquake”**, 26 January 2021: Dept. of Earth and Env. Science, KSKV Kachchh University, Bhuj
7. Convened **“Bicentenary Commemoration of 1819 Intra-Plate Allah Band Earthquake Of Kachchh Basin: Past Chronicle And Future Opportunities”** during 15 and 16 June 2019 in the Dept. of Earth and Env. Sc. KSKV Kachchh University, Bhuj
8. Convened **“Second National Conference and Field Workshop On ‘Recent Studies On The Geology Of Kachchh Basin’** during 30 Dec 2019 to 1 Jan 2019 at the Dept. of Earth and Env. Sc., KSKV Kachchh University, Bhuj-Kachchh
9. Convened 30th Gujarat Science Congress – 2016 theme: **Challenges for Science and Technology Education During coming decades: Preparing for a sustainable Gujarat** (6 and 7 February, 2016)
10. Coordinated MoES sponsored Brain Storming session on **“Quaternary Geology of western India: Present status and future perspectives”** (8th February 2016)
11. Coordinated **DST field workshop** on **“Sedimentation Tectonics and Quaternary Landforms of Zaskar Valley of Ladakh Himalaya”** (25th August to 8th September 2015)
12. Organized seminar on **“Mining and mineral industry in Kachchh district - prospects, opportunity and threats”** on 14.02.2015
13. Organized field work in **“Kachchh of Planetary Sciences and Exploration Programme (PLANEX) Fifteenth Workshop on & Quot Mars and Moon: Remote Sensing and Analogue Studies”** 4 – 10 January 2015.
14. Coordinated the field workshop of the **“9th International Congress on Jurassic System”** organized by the University of Jaipur. (26 December to 4th January, 2014)
15. Coordinated **INSPIRE (DST Programme)** for school Children in July 2012 (**27 to 31 July, 2014**) in the Department of Earth and Environmental Science, Kachchh University
16. Coordinated **National Level Field Workshop and Brainstorming session “Geology of Kachchh basin, western India: Present status and future perspectives”** during **26 to 29 January 2012** in the Department of Earth and Env. Sc. in Kachchh University.
17. Coordinated **INSPIRE (DST Programme)** for school Children in July 2012 (**1 to 5 July, 2012**) in the Department of Earth and Environmental Science, Kachchh University
18. Coordinated **INSPIRE (DST Programme)** for school Children in August 2012 (**5 to 9 August, 2012**) in the Department of Earth and Environmental Science, Kachchh University
19. **Coordinated INSPIRE (DST Programme)** for school Children in August 2012 (**9 to 11 November, 2011**) in the Department of Earth and Environmental Science, Kachchh University
20. Convened a workshop on **“Environmental Protection and Pollution control: A Law persepective”** on 5th April 2010 at KSKV Kachchh University.
21. Coordinated Fourth SERC workshop (Summer-Winter School) on **“Active Tectonics and Paleoseismology”** during 11th to 23rd November 2007 at Department of Geology, R. R. Lalan College, Bhuj (Directors: Prof.L.S.Chamyal and Dr. C. P. Rajendran)
22. Organized an international workshop on **“Geology of Kachchh Basin”** with the Energy and Geoscience Institute, The University of **Utah, USA** during 8th to 12th December 2009.
23. Convened an Industry-University friendly meet **“Sangat”** at KSKV Kachchh University on 10th February 2008.
24. Convened a workshop on Continuous Evaluation Pattern in the faculty of Science KSKV Kachchh University 7th to 8th May 2006 in Bhuj.

Academic and administrative Experience:

- ❖ **Coordinator:** 12B committee of KSKV Kachchh University during 2017-18
- ❖ **In-charge Registrar of KSKV Kachchh University** during October 2013 to March 2016 and during January 2019 to November 2019.

- ❖ **District Coordinator** – Quality Enhancement Programme in Higher Education, Government of Gujarat-2007
- ❖ **Dean–Faculty of Science**, KSKV Kachchh University, Bhuj-Kachchh from September 2006 to April 2011 and 2014 to 2016; 2023
- ❖ **Chairman** – Board of studies – Geology since 2006
- ❖ **Member** – Academic Council, Board of University Teaching and Research, Senate and Syndicate - KSKV Kachchh University
- ❖ **Member** – BOS, Geology in Banasthali University, Rajasthan; HNG University, Patan
- ❖ **Member** – BOS, Geology in M S University of Baroda
- ❖ **Member** – BOS, Geology in Gujarat University, Ahmedabad
- ❖ **Member in Advisory committee:** New course in B.Sc. Geophysics, DKV College of Science and Arts, Saurashtra University.
- ❖ **Coordinator:** Workshop on Continuous Evaluation System in the Science Faculty of Kachchh University, Bhuj on 7th and 8th May 2006.
- ❖ **Principal** in Shri R. R. Lalan College, Bhuj from June 2006 to July 2008 (**achieved NAAC** accreditation during the tenure).
- ❖ **Core Faculty** in Career Oriented courses in the Department of Geology, R. R. Lalan College, Bhuj (for courses: Disaster Management, Basics of Earthquake Science and Applied Mineralogy) (2005-2008)
- ❖ **Visiting lecturer** in Mining Geology in Govt. Polytechnic, Bhuj for two years.
- ❖ **Visiting faculty:** Virayatan Engineering College, Govt. Science College, Marine Science course.
- ❖ Participated a UGC sponsored **Refresher course** in "*Applied Quaternary Geology*" held at the Department of Geology, M. S. University of Baroda, **Vadodara** during Jan-Feb. 1996.
- ❖ Participated a UGC sponsored **Refresher course in "Landscapes and Processes"** held at the Department of Geology, M. S. University of Baroda, **Vadodara** during Nov.-Dec. 2000.
- ❖ Participated a DST sponsored **short-term course** on "*Paleoseismicity and Active Tectonics in Northeast India*" held at Department of Earth Sciences. Manipur University, **Imphal** during 15th to 20th November 1999.
- ❖ Participated a DST sponsored **contact program cum field workshop** on "*Structure, Tectonics and Mesozoic Stratigraphy of Kachchh*". Organized at Department of Geology, M. S. University of Baroda, Vadodara and held at **Bhuj** during 14th to 20th January 2002.
- ❖ Participated a UGC sponsored **Orientation Programme** at C. R. Gardi Academic Staff College, Rajkot during 28/02/05 to 27/03/05.
- ❖ Examiner in Mining Geology in Govt. Polytechnic Bhuj for four years.

Research Publications

BOOKS:

Year – 2017

1. **Thakkar, M.G.** (2017) Geomorphological Field Guide Book on Kachchh Peninsula (Edited by Amal Kar). *Indian Institute of Geomorphologists, Allahabad.*

Year – 2015

2. S. K. Parcha, **M. G. Thakkar**, V. C. Thakur and Navin Juyal (2015) Field Excursion Guide: Sedimentation, Tectonics and Quaternary Landforms of Zanskar Valley. DST Field workshop, *Organized and published by KSKV Kachchh University, Bhuj.*

RESEARCH PAPERS:

Year-2024

1. Yash Shah, Hemashri Thacker, Yogendrasinh Jadeja, Sazina Bhimani, **Mahesh Thakkar** and Gaurav Chauhan (2024) Climate Change: Boon or curse to the groundwater system of arid to semi-arid region? A case study from Kachchh Basin, Western India (*Submitted to Current Science*)
2. Hemashri Thacker, Yash Shah, Akshay Jyoti Borah, Yogendrasinh Jadeja, **Mahesh Thakkar**, Gaurav Chauhan, Sazina Bhimani (2024), multi-criteria prioritization of watersheds across Katrol Hill Fault (KHF) for groundwater potential, based on geomorphology and morphometric analysis using RS and GIS techniques (*Communicated to Remote Sensing Applications*)
3. Gaurav Chauhan, S. K. Biswas, Girish Ch. Kothiyari, **M. G. Thakkar** (2024) Morphotectonic and structural style of “Median High”- a first-order basement high across the Kachchh rift basin, western India (*Communicated to Quaternary Science Advances*)
4. Girish Ch Kothiyari, Raj Sunil Kandregula, Gaurav Chauhan, Vamdev Pathak, K V Swamy, **M. G. Thakkar** (2024) Tectono-geomorphic records of neotectonic activity along the Kachchh Mainland Fault in a seismically active Intraplate setting, Kachchh paleo rift basin, Western India, (*Submitted to Geomorphology*)
5. Ngangom M, Chauhan P. and **Thakkar, M. G.** (2024) Drought Assessment using Remote Sensing Techniques in the Great Rann of Kachchh and adjoining areas of Thar Desert, Western India (*Submitted to the Journal of Applied Remote Sensing*)
6. Rupak Dey; Seema B sharma; **Mahesh G. Thakkar** (2024) Decisive role of tectonic driven edaphic factors in

- minor nutrients distribution pattern ipso facto vegetation in the tropical Asiatic grasslands" (Communicated to Scientific Reports- Springer Nature).
7. Gaurav Chauhan, Aditya Udayraj Joshi, Manoj Limaye, J M Patel, Hemashri Thacker, Yash Shah, Bhavyata Chavada, Suraj Bhosale, Abhishek Lakhote, Chirag Jani, Suruchi Patel, Girish Ch. Kothiyari, **M. G. Thakkar** (2024) Geoheritage values of Ambaji region, Gujarat: Western India, *Geoheritage*, (16) 3, p.82; <https://doi.org/10.1007/s12371-024-00985-3>
 8. Rupak Dey; Seema B Sharma; Mahesh G. Thakkar (2024) Maximising ecological value and assessing land suitability for sustainable grassland management in Asia's largest tropical grassland, Western India. *Nature Scientific Reports* 14, 13658, pp1-20. <https://doi.org/10.1038/s41598-024-62775-9>
 9. Dey, R., Sharma, S.B., **Thakkar, M.G.** and Abhiroop Chowdhury (2024) Banni Grassland, a Geoheritage Landscape of Western India: Endless Possibilities for Geo-Eco-Socio Tourism. *Geoheritage* **16**, 52 (2024). <https://doi.org/10.1007/s12371-024-00945-x>
 10. Ramanand_Sagar, Vivesh V. Kapur, Kamlesh Kumar, P. Morthekai, Anupam Sharma, Sunil K. Shukla, Amit K. Ghosh, Gaurav Chauhan, **M.G. Thakkar** (2024) First record of Chelonian coprolites from the Early-Middle Miocene Kutch Basin, western India, and their palaeodietary and palaeobiological implications, *Geobios*, 26 April, in Press <https://doi.org/10.1016/j.geobios.2023.12.004>
 11. Ayushi Bhatnagar, Anil D Shukla, Mamata Ngangom, **MG Thakkar**, Jyotsna Dubey, Ravi Bhushan (2024) Analysis of sediment provenance using geochemical and isotopic data for a post-LGM sediment core from the western Great Rann of Kachchh, India: Implications for climate control on source regions; *Palaeogeography, Palaeoclimatology, Palaeoecology*, Volume 644, 15 June 2024, 112185, <https://doi.org/10.1016/j.palaeo.2024.112185>
 12. Suraj Bhosale, Dharendra Pandey, Matthias Alberti, Franz Fürsich, Ketan Chaskar, **Mahesh Thakkar** (2024) Upper Jurassic (Oxfordian–Tithonian) ammonites and biostratigraphy of the Spiti Shale Formation of the Spiti and Zaskar regions in the Indian Himalayas. *Palaeontographica Abteilung A*2024/3/21; Publisher: Schweizerbart'sche Verlagsbuchhandlung
 13. Rupak Dey; Seema B sharma; **Mahesh G. Thakkar** (2024) Livestock Movement driven Phosphorus transitions as core drivers of Grassland Vegetation Dynamics, *Catena* Volume **235**, February 2024, 107694. <https://doi.org/10.1016/j.catena.2023.107694>
 14. Gaurav Chauhan, Chirag Jani, Girish Ch Kothiyari, Siddharth Prizomwala, Chintan Vedpathak, Abhishek Lakhote, Raj Sunil Kandregula, Jaymeet Solanki, Chirag Parmar, Subhash Bhandari, **M.G. Thakkar** (2024) Structural analysis and neotectonic evidences of the dip-slip transverse fault system in the central Mainland Kachchh region, Western India. *Quaternary Science Advances* Volume **13**, January 2024, 100168, <https://doi.org/10.1016/j.qsa.2024.100168>
 15. Suraj Bhosale, Nibedita Rakshit, Abhishek Natarajan, Gaurav Chauhan and **Mahesh Thakkar** (2024) The oldest Gondwanan record of durophagous shark *Strophodus* Agassiz, 1838 (Hybodontiformes) from the Kachchh Basin, western India; Online: 19 Mar 2024: <https://doi.org/10.1080/08912963.2024.2324430>
 16. Girish Kothiyari, Chirag Jani, Sudhanshu Bajpai, Abhishek Lakhote, Gaurav Chauhan, Kamal Agrawal, Rakesh Dumka, Abhishek Shukla, Raj Sunil Kandregula, B Sairam, **Mahesh Thakkar** (2024) Bed parallel slip and paleostress analysis of the Kodki fault zone, Kachchh, Western India, *Quaternary Science Advances*, 13, 100137. <https://doi.org/10.1016/j.qsa.2023.100137>
 17. Mamata Ngangom, **MG Thakkar** (2024) Decline of Dholavira Urban Settlement of Harappan Civilization in Kachchh was Associated with Global Climate Change Rather than the Decline of any Major Fluvial System, Book Chapter: Rivers of India: Past, Present and Future 2024/3/2. 197-216: Springer International Publishing.

Year-2023

18. Ketan Chaskar; Suraj A. Bhosale; D. K. Pandey; Gaurav D. Chauhan; **M. G. Thakkar**; Subhash Bhandari (2023), Cultural and Geoheritage of the Spiti Valley of India: A Thing of Past, Shielded for the Future *Geoheritage*, 15 (4), pp108. <https://doi.org/10.1007/s12371-023-00875-0>
19. Saurabh Mathur, Sudhanshu Sharma, SK Singh, **MG Thakkar**, Gaurav Chauhan, Shiv Singh Rathore, SC Mathur (2023) Assessment and Threat to Significant Geoheritage of Soorsagar Formation of Jodhpur Group of Marwar Supergroup, Western Rajasthan, India: A Geological and Remote Sensing Approach, *Geoheritage* **15**, 127. <https://doi.org/10.1007/s12371-023-00896-9>
20. Chirag Jani; Girish Ch. Kothiyari; Sidharth Prizomwala; Chintan Vedpathak; Abhishek Lakhote; Sunil Raj Kandregula; Jaymeet Solanki; Subhash Bhandari; **M. G. Thakkar** (2023) Dynamic extensional setting in the Central Kachchh Mainland and its neotectonic implications, Western India, *Quaternary Science Advances: Volume 13*, January 2024, 100137, <https://doi.org/10.1016/j.qsa.2023.100137>
21. **M. G. Thakkar**, Gaurav Chauhan, Aadil Hussain Padder, Shubhra Sharma, S. K. Parcha, V. C. Thakur, C. P. Dorjay (2023) Geoheritage merits of Zaskar Range of Kashmir Himalaya: A field Geology Museum from Precambrian to Present. *Geoheritage* **15**, 75 (2023). <https://doi.org/10.1007/s12371-023-00842-9>
22. Vivesh V. Kapur, Blanca A. García Yelo, and **M. G. Thakkar** (2023) Development of cenogram technique over the past six decades with some insights into the varied habitats occupied by diverse mammalian communities across India and Spain transiting the Middle Miocene Climatic Optimum. In: *Phartiyal, B., Mohan, R.,*

Chakraborty, S., Dutta, V., Gupta, A.K. (eds) *Climate Change and Environmental Impacts: Past, Present and Future Perspective*. Society of Earth Scientists Series. Springer, Cham. https://doi.org/10.1007/978-3-031-13119-6_3

23. Chirag Jani, Subhash Bhandari, Girish Ch. Kothiyari, Abhishek Lakhote, Gaurav D. Chauhan, **M. G. Thakkar**, (2022) Paleostress analysis and reconstruction of tectonic stress variations since Gondwana breakup in the Island Belt Fault Zone, Kutch basin, India *Journal of Asian Earth Sciences*, December 2022, 105522, <https://doi.org/10.1016/j.jseaes.2022.105522>
24. N. K. Chauhan; G. D. Chauhan; V. Agrawal; **M. G. Thakkar** (2023), Geological Heritage and Geotourism Potential of Udaipur Region and Surrounding Area, Rajasthan, India *Geoheritage*, 15 (10) pp.1-36. <https://doi.org/10.1007/s12371-022-00773-x>
25. Avinash Goswami, Naresh Gor, Akshay Jyoti Borah, Gaurav Chauhan, Dipankar Saha, Girish Ch Kothiyari, Dimpi Barpatra, Amborish Hazarika, Abhishek Lakhote, Chirag Jani, Jaymeet Solanki, **MG Thakkar** (2023) Groundwater potential zone demarcation in the Khadir Island of Kachchh, Western India, Groundwater for Sustainable Development, 100876; <https://doi.org/10.1016/j.gsd.2022.100876>

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26. Sagar Ramanand, Kapur Vivesh V, Kumar Kamlesh, Morthekai, Paulramasamy, Sharma Anupam, Shukla Sunil, Ghosh Amit K, Chauhan Gaurav and **Thakkar Mahesh G** (2022) The First Record on CM-Sized Vertebrate Coprolites From The Early-Middle Miocene (Aquitania-Langhian) Khari Nadi and Chassra Formations, Kutch Basin, Western India: Palaeobiological Significance (November 7, 2022). Available at SSRN: <https://ssrn.com/abstract=4269941> or <http://dx.doi.org/10.2139/ssrn.4269941>
27. Adarsh Thakkar, Jaypal Jadeja, S.V. Rajesh, Anil Chavan, G.S. Abhayan, Subhash Bhandari, Gaurav Chauhan, **M.G. Thakkar** (2022). Geoarchaeological heritage of Kachchh region, Gujarat, Western India: Geotourism Potentials, *Geoheritage*, 14, (4) pp.1-19. <https://doi.org/10.1007/s12371-022-00748-y>
28. Debarun Mukherjee, Arijit Ray, Dalim K Paul, Kuhu Chakraborty, **Mahesh Thakkar**, Gaurav Chauhan (2022) Petrology and geochemistry of Bhanjada Bet Phonolites, Kutch, Gujarat in Western Deccan Province: possibility of a mantle derived primary phonolite magma, *Journal of Earth System Science* 131 (4), 1-21, <https://doi.org/10.1007/s12040-022-01955-5>
29. Yash Shah, Sazina Bhimani, Hemashri Thacker, Akshay Jyoti Borah, Yogendrasinh Jadeja, **Mahesh Thakkar**, Gaurav Chauhan, Girish Ch Kothiyari, Ajay Taloor (2022), Spatial variations and trend analysis of groundwater salinity along coastal aquifers of Mundra-Kachchh over a decade- using thematic maps and GIS mapping. *Appl Water Sci* 12, 243 (2022). <https://doi.org/10.1007/s13201-022-01760-x>
30. AH Padder, S Nandy, G Ch Kothiyari, C Jani, A Lakhote, RS Kandregula, N Joshi, AK Taloor, G Chauhan, **MG Thakkar** (2022) Geomorphometric Appraisal for Seismic Hazard Assessment in the Chenab River Basin of the NW Himalayas, India. *Journal of Geotectonics* <https://doi.org/10.1134/S0016852122040069>
31. Joshi, A.U., Gorania, P., Limaye, M.A., Chauhan G. D. and **Thakkar M. G.** (2022) Geoheritage Values of the Champaner-Pavagadh Archaeological Park, UNESCO World Heritage Site, Gujarat, Western India. *Geoheritage* 14, 88. <https://doi.org/10.1007/s12371-022-00720-w>.
32. Padia, D., Desai, B., Chauhan, S., Prizomwala, S., Chauhan, G., & **Thakkar, M. G.** (2022). Middle to Late Holocene palaeoenvironmental evolution of the western Great Rann of Kachchh, India: Insights from ichnology, geochemistry, and sedimentology. *Geological Journal*, 1–19. <https://doi.org/10.1002/gj.4521>
33. Anil K. Pokharia, Sadhan K. Basumatary, Biswajeet Thakur, Swati Tripathi, H. Gregory McDonald Deepika Tripathi, Pooja Tiwari, Eline Van Asperen, Michael Spate, Gaurav Chauhan, **Mahesh G. Thakkar**, Alka Srivastava, Shailesh Agarwal (2022) Multiproxy analysis on Indian wild ass (*Equus hemionus khur*) dung from Little Rann of Western India and its implications for the palaeoecology and archaeology of arid regions, *Review of Palaeobotany and Palynology*, online 1 June 2022, 104700. <https://doi.org/10.1016/j.revpalbo.2022.104700>
34. Vivesh V. Kapur, Kamlesh Kumar, Pranav J. Pandya, Amit K. Ghosh, Arindam Chakraborty, Anupam Sharma, Gaurav Chauhan, **M. G. Thakkar** (2022) Oldest Asian record of snapping shrimps (Alpheidae) from 1 Kutch Basin, western India and associated microbiota: biostratigraphic, palaeoenvironmental and palaeoecological significance, *Acta Geologica Sinica*, Bulletin of Geol. Soc. China: <https://doi.org/10.1111/1755-6724.14951>. Wiley Online Library, 23 May 2022.
35. Fulmati Ram, **Mahesh Thakkar**, Gaurav Chauhan, Ravi Bhusan, Navin Juyal, Anindya Sarkar (2022) Carbon isotope and organic geochemistry of the Holocene sediments from Rann of Kachchh: implications to the preservation of organic matter and climate during the Indus Valley civilization, 2022/3/25, EGU22, EGU22-555.
36. Hemashri Thacker, Yash Shah, Akshay Jyoti Borah, Yogendrasinh Jadeja, **Mahesh Thakkar**, Sazina Bhimani, Gaurav Chauhan (2022) Assessment of Groundwater Potential Zones across Katrol Hill Fault, Kachchh, Western India: A Remote Sensing and GIS Approach, *Open Journal of Geology*, 12 (2), 111-135. [10.4236/ojg.2022.122006](https://doi.org/10.4236/ojg.2022.122006)
37. Anil Chavan, Subham Sarkar, Adarsh Thakkar, Jaymeet Solanki, Chirag Jani, Subhash Bhandari, Satadru Bhattacharya, Bhawanisingh G Desai, Dwijesh Ray, Anil D Shukla, KS Sajinkumar, Souvik Mitra, Saibal

Gupta, Gaurav Chauhan, **MG Thakkar** (2022) Terrestrial Martian Analog Heritage of Kachchh Basin, Western India *Geoheritage* 14 (1), 1-26. <https://doi.org/10.1007/s12371-022-00666-z>

Year-2021

38. D Suri Babu, Rakesh K Dumka, Joydeep Paikray, **M. G. Thakkar**, Sandip B Prajapati, K. V. Swamy (2020) Geodetic characterization of active Katrol Hill Fault (KHF) of Central Mainland Kachchh, Western India. *Geodesy and Geodynamics*, <https://doi.org/10.1016/j.geog.2021.05.003>
39. S Bhosale, D Kumar Pandey, FT Fürsich, M Alberti, K Chaskar and **Mahesh G. Thakkar** (2021) Palaeobiogeography of the Late Jurassic ammonite genus *Parabuliceras* in the Indo-Pacific Realm and newly collected material from Spiti Valley, India. *Neues Jahrbuch für Geologie und Paläontologie-Abhandlungen*, 63-87. DOI: [10.1127/njgpa/2021/1019](https://doi.org/10.1127/njgpa/2021/1019)
40. Madhavi Dabhi, Adarsh Thakkar, Anil Chavan, Gaurav Chauhan, Rakesh Bhagora, Naveen Chauhan, Anil Shukla, Subhash Bhandari, **MG Thakkar** (2021) Mid-late Holocene climatic reconstruction from coastal dunes of the western Kachchh, India *Quaternary International*, 2021/9/24. <https://doi.org/10.1016/j.quaint.2021.09.011>
41. Girish Ch Kothiyari, Raj Sunil Kandregula, Bahadur Singh Kotlia, Abhishek Lakhote, KV Swamy, Vamdev Pathak, Gaurav Chauhan, **MG Thakkar** (2021) Palaeoseismic investigations along the Kachchh Mainland Fault: A comprehensive review and new insights of the past earthquakes in the Kachchh basin, western India. *Quaternary International*: 599-600: 184-209 <https://doi.org/10.1016/j.quaint.2020.08.042>
42. Chirag Jani, Raj Sunil Kundregula, Suraj Bhosale, Anil Chavan, Abhishek Lakhote, Subhash Bhandari, Girish Ch Kothiyari, Gaurav Chauhan, Rakesh K Dumka, D Suri Babu, Adarsh Thakkar, Ajay Kumar Taloor, Anil Gor, **MG Thakkar** (2021) Delineation of tectonically active zones in the Island Belt Uplift region, Kachchh Basin, western India: A geomorphic and geodetic approach, *Quaternary Science Advances*, 100034. <https://doi.org/10.1016/j.qsa.2021.100034>
43. **M. G. Thakkar**, Gaurav Chauhan and Sumer Chopra (2021) 200 years' of commemoration of Allah Bund Earthquake of Kachchh. *Journal of the Geological Society of India* 97 (1), 109-110 "News and Notes". DOI: <http://10.1007/s12594-021-1633-2>
44. Gaurav Chauhan, **M. G. Thakkar**, S. K. Biswas, Kevin Page (2021) Unique Geo-heritage of Kachchh (Kutch) basin, western India and its Preservation. *GEOHERITAGE*, 13 (23), 1-43: <https://doi.org/10.1007/s12371-021-00535-1>
45. Seema Sharma, G. A. Thivakaran and **M. G. Thakkar** (2021) The game-changing role of traditional eco-knowledge based Agri-amendment systems in nutrient dynamics in the stress-prone semi-arid tropics" *Nature: Scientific Reports*: 11 (9425), 1-10. <https://doi.org/10.1038/s41598-021-88801-8>
46. AD Prasad , F Bhattacharya, , Balaji, G Chauhan and **M. G. Thakkar** (2021) Late-Quaternary Miliolite (biogenic carbonate) deposits and their implications for sea-level fluctuations and climatic variability *Earth Surface Processes and Landforms*, 46 (5), 921-941; <https://doi.org/10.1002/esp.5067>
47. Raj Sunil Kandregula, Girish Ch Kothiyari, Gaurav Chauhan, **M. G. Thakkar** (2021) Estimation of Regional Surface Deformation post the 2001 Bhuj Earthquake in the Kachchh Region, Western India Using RADAR Interferometry. *Geocarto International*:1-29: Taylor and Francis: <https://www.tandfonline.com/loi/tgei20>: DOI: [10.1080/10106049.2021.1899299](https://doi.org/10.1080/10106049.2021.1899299)
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49. Suraj Bhosale, Ketan Chaskar, Dharendra Kumar Pandey, Gaurav Chauhan, Abhishek Lakhote, Adarsh Thakkar, Subhash Bhandari, **M. G. Thakkar** (2020) Jurassic Geodiversity and Geomorphosite of Kanthkot area, Wagad, Kachchh, Western India *International Journal of Geoheritage and Parks*; 9 (1); 51-68: <http://doi.org/10.1016/j.ijgeop.2020.12.008>
50. G.C. Kothiyari, RS Kandregula, G Chauhan, BG Desai, AK Taloor, V Pathak, KV Swamy, Sneha Mishra, **MG Thakkar** (2021) Quaternary Landform development in the central segment of tectonically active Kachchh Mainland Fault zone, Western India. *Quaternary Science Advances* 3, 100018; <https://doi.org/10.1016/j.qsa.2020.100018>
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52. Abhishek Lakhote, **M. G. Thakkar**, Raj Sunil Kandregula, Chirag Jani, Girish Ch Kothiyari, Gaurav Chauhan, and Subhash Bhandari (2020) Estimation of active surface deformation in the eastern Kachchh region, Western India: using multi-sensor DInSAR techniques *Quaternary International* 575-576, 130-140; <http://doi.org/10.1016/j.quaint.2020.07.010>
53. Abhishek Lakhote, **M. G. Thakkar**, Raj Sunil Kandregula, Girish Ch. Kothiyari and Gaurav Chauhan (2020) Active Tectonics of Eastern Segment of South Wagad Fault, Kachchh, Western India : *Quaternary*

International: 500-600: 223-234: <https://doi.org/10.1016/j.quaint.2020.09.024>

54. V. V. Kapur, M. Pickford, G. Chauhan, **M. G. Thakkar** (2021) A Middle Miocene (~ 14 Ma) vertebrate assemblage from Palasava, Rapar Taluka, Kutch (Kachchh) District, Gujarat State, western India, *Historical Biology*, Taylor & Francis, doi.org/10.1080/08912963.2019.1648451, pp. 1-21

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55. Raj Sunil Kandregula, Girish Ch Kothiyari, Gaurav Chauhan, Vasu Pancholi, K V Swamy, Abhishek Lakhote, Sneha Mishra and **M G Thakkar** (2020) Evaluating the seismic hazard in the Kachchh Region, western India using the river gradient length anomaly technique *Joul. Earth System Sc.*, 129, 193. doi.org/10.1007/s12040-020-01449-2
56. Girish Ch Kothiyari, Raj Sunil Kandregula, Gaurav Chauhan, **M. G Thakkar** (2020) Geomorphic and paleoseismological evidence of active Kachchh, Mainland Fault, Kachchh, India, *Arabian Journal of Geosciences* (2020) 13:468, <https://doi.org/10.1007/s12517-020-05350-6>
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33. **THAKKAR, M. G.** (2003): Shallow sub-surface signatures along Transverse fault system of Kachchh, western India. *DST's Regional workshop on Science of Shallow sub-surface, PRL, A'bad, 29th Dec. 2003.*

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35. **THAKKAR, M. G.,** C.P.Rajendran and Kusala Rajendran (2001) The 2001 Bhuj-Kachchh Earthquake in relation to the Neotectonics and Regional structures. Gujarat, Western India. *Abstract, ILP conference (Ten years of Paleoseismology in ILP) New Zealand, Dec. 2001.*

REPORTS:

1. **M. G. Thakkar** and Gaurav Chauhan (2020) Field Guide Kachchh Tertiary: A Sequence Stratigraphy approach: On N. Christie Blick Visit to Kachchh University. (INSA Sponsored).
2. **M.G. Thakkar** (2020) Report on N. Christie Blick Visit to Department of Earth and Environmental Science, KSKV Kachchh University in February 2020. Sponsored by INSA-New Delhi.
3. **M. G. Thakkar** (2015) Field Excursion Guide: Sedimentation, Tectonics and Quaternary Landforms of Zanskar Valley (Excursion Guide). Other editors: S.K. Parcha, Navin Juyal, V. C. Thakur, DST, New Delhi.
4. Rajendran, C.P., Rajendran, K. and **Thakkar, M.,** Field investigations in the epicentral area of January 26, 2001 earthquake, Final Technical Report, Department of Science and Technology, New Delhi, 2002, 49pp.
5. **Mahesh Thakkar** (2002) Report on participation in an international conference "10 Years of Paleoseismology in the ILP: Progress and Prospects" Held at Kaikoura, New Zealand during 17-21 December, 2001 submitted in the DST, CSIR, New Delhi and Education Department, Government of Gujarat.
6. **Dr. M. G. Thakkar** (2003) Report on participation in an international workshop "Earth System Processes Related to Gujarat Earthquake Using Space Technology" held at IIT Kanpur during 27th to 29th January, 2003 submitted in the DST and Education Department, Gandhinagar, Gujarat.
7. **M. G. Thakkar,** Bhanu Goyal and M. M. Sodha (2003): Fossils: The best tool for Geological Awareness in Academic Institutions and Society, A Report/ general article presented at a state level seminar on "Fossil occurrences in Lignite bearing Tertiary formations in Gujarat" held by MEAI, GMDC, Panandhro, Kachchh.
8. **M. G. Thakkar** (2005): Project Completion Report of the DST Research Project on "Preliminary documentation of ground deformation and tsunami effects at Andaman and Nicobar Islands and Eastern Coast of India (in connection to the 26th December, 2004 Sumatra Earthquake)" No. DST/23(505) SU/2005, Submitted to the Seismology Division Deptt. Of Science and Technology, N. Delhi.

RESEARCH NOTES

- 1 **Thakkar, M. G.** (2002) Ten Years of Palaeoseismology in ILP, *Jour. Geol. Soc. India*, Vol. 60, No.3, pp 341-343.
- 2 **M. G. Thakkar** and Bhanu Goyal (2004) New Observations: Kachchh Paleoseismology, DST Newsletter, Vol.1, No.2 pp3.

GENERAL PUBLICATIONS

- 1 **M. G. Thakkar** and Anil Gor (2022) Role of Physics in unfolding the mysteries of Geoscience, *Pragami Tarang-2022*, ISSN-2347 2782, Vol: XIV. Pp. 26-30. (*article in Gujarati*)
- 2 Translation of the "Geology Terminology in Gujarati and Hindi" Total Seven books translated published by Gujarat Granth Nirman Board.
- 3 A chapter on "Kachchh nu Bhustar" in a Book on Kachchh by Kachchh Development Council, Mumbai.
- 4 Edited and compiled a book: Kutch Guide.
- 5 Given a series of articles on Earthquakes, its mechanism, general awareness, prediction, recent research and on the latest studies regarding 2001 Bhuj and 1819 Allah Bund Earthquake in a local daily, "Kutch Mitra".
- 6 A general article for scientific awareness, "*Kutchman Bhukamp vignyanni Avganana nahi palve* (Apathy to Earthquake science in Kachchh is not a good sign)" published in "KutchMitra" Deepotsavi Volume, Nov. 2001
- 7 A general article for scientific awareness, "*Ateet, Vartmaan ane Bhavishyaman Kutchnu Bhoostar* (Geological Past, Present and Future of Kachchh)" published in "KutchMitra" Earthquake Special Volume, Feb.2002, on completion of one year of the earthquake.

Field Experience

- ❖ Geological mapping, surveying and extensive trekking on highly rugged terrain of Kumaun, Sikkim, Garhwal, Kashmir, NE Himalaya and Pre-Cambrian areas of Gujarat and Rajasthan.
- ❖ Exploring Kachchh for **Neotectonics and paleoseismic study**.
- ❖ Acquired field training in neotectonics by some of the national and international scientists (**Dr. L.S.Chamyal, Prof. K.S. Valdiya, Prof. S.K.Tandon, Dr. Kanchan Pandey, Dr. S.K.Biswas**).
- ❖ During 2001 Gujarat Earthquake I have worked in the field with well known Indian paleoseismologists **Dr.C.P.Rajendran** and **Dr.Kusala Rajendran** of CESS (Center for Earth Science Studies), Trivendrum.
- ❖ Worked with Memphis (USA) scientist, **Ms. Martitia P.Tuttle** in Kachchh for the identification and documentation of various **liquefaction features** during 2001 Gujarat Earthquake.
- ❖ Have also working experience with well known US seismologists **Dr.Arch Johnston** (Director, Mid American Earthquake Center MAEC), **Dr.Paul Bodin**, scientist, CERI, Memphis (USA), **Dr. Gary Patterson, Dr. T. K. Rockwell** (Sr. Proj. Geologist, Earth Consultant International, California), **Leonardo Seeber**, seismologist, Lamont Doherty Geological Observatory, Columbia University (N.Y.), **Steven Wesnouskey**, Director, Center for Neotectonic studies and Professor Uni. Of Nevada; **Dr. Ms. Rebecca Bendick** and **Dr. Grant Kier**, geologists, Colorado State Uni. and **Dr. James McCalpin** a renowned paleoseismologist.
- ❖ I have also worked with **Dr.James Zollweg** of the D/o Geosciences, Boise State Uni. Idaho, USA under the NSF (National Science Foundation) and **National Geographic Society** project of Kachchh Seismicity by **Telemetric Seismic Network** in Kachchh. I also acquired field training for **GPS installation** and data collection in Kachchh as a part of Roger Bilham's geodetic study in Kachchh.
- ❖ Have got **Field Training in Paleoseismology**: Trenching at **Hope Fault-a Pacific and Indo-Australian plate boundary**, South Island, **New Zealand** and morphotectonic study at raised Marine Terraces at **Conway Coast, New Zealand**.
- ❖ I have also got field training in **Tsunami and paleo-tsunami Geology** by **Dr. Brian F. Atwater** – (USGS scientist) at South Indian and Kachchh coast.
- ❖ Extensive field work on Andaman and Nicobar Coast for the post tsunami surface deformation and tsunami destruction studies.

General Experience

- ❖ Worked as a **script writer** in a documentary on "**Kachchh a land of variation**" to be aired in the UK, by **EYE TV** network.
- ❖ Given many **radio talks** on various science subjects on All India Radio, Bhuj
- ❖ Worked as a **script writer** and **translator** in a **documentary on Koba Jain Tirth**.
- ❖ Worked as a presiding and counting officer in assembly, parliamentary and Nagarpalika elections for seven times.
- ❖ **Founder member** in "**Kachchh Tourism and Handicrafts Development Federation**" Bhuj, Kachchh.
- ❖ **General Secretary: Kachchh Fossil Park**: An organization for research, restoration and protection of fossils and also for geological and scientific awareness in the society.
- ❖ Resource person in UGC sponsored orientation program at C. R. Gardi Academic Staff College, Rajkot.