



DEPARTMENT PROFILE

**The Department of Earth and Environmental Science
KSKV Kachchh University, Bhuj-Kachchh-370001**





The Department of Earth and Environmental Science

KSKV Kachchh University, Bhuj-Kachchh-370001

COURSES: **M.Sc. and Ph. D. (Geology)**
 M.Sc. and Ph. D. (Environmental Science)

FACULTIES

Dr. M. G. Thakkar (Head of the Department and Dean: Faculty of Science)

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Dr. Subhash Bhandari (Associate Professor in Geology)

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Dr. Mrugesh Trivedi (Lecturer in Environmental Science)

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Dr. Suhas Vyas (Lecturer in Environmental Science)

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Dr. C. P. Mistry (Lecturer in Geology)

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TEACHING ASSISTANTS

Ms. Manishika Gor

Ms. Ngangom Mamata Devi

Ms. Swati Dave

OFFICE STAFF:

Ms. Vimla Maheshwari (Laboratory Assistant)

Mr. Paresh Katuewa (Clerk)

PROJECT / STAFF:

Ms. Ngangom Mamata Devi (JRF-DST Project)

FACILITIES IN THE DEPARTMENT

Audio Visual facilities

Multimedia Projectors with screens

Museum

- Geological Museum with many rocks, minerals, fossils and models
- Big skeletons of Tertiary Reptiles of Kachchh in a separate Reptile Research centre with the facility of micro chipper and extractor machine for fossils

Remote Sensing and GIS Laboratory



A separate GIS and Remote Sensing Laboratory with seating capacity of 20 students with authentic GIS software and Wi-Fi internet facility.

Petrographical Lab

25 Petrological microscopes (monocular, binocular and trinocular), Stereo-microscopes, ore microscopes, Lieca's high definition microscopes with exclusive software

Geochemistry Laboratory

- i. Facility to carry out chemical analysis of rocks and sediments with the following instruments:
- ii. UV-Visual Spectrophotometer
- iii. Hot air Oven
- iv. Microwave oven etc.

Geological and Geographical field Surveying Facility

1. Digital Total Station with in-built GPS
2. Global Positioning System (GPS) (separate unit)
3. Plane Table surveying assembly
4. Chain and Tape survey assembly
5. Clinometers, Brunton compasses
6. Abney Levels
7. Field tents and umbrellas
8. Digital cameras and Handy-cam for documentation

Sedimentological Laboratory

- i. Grain size analysis system (Sieving and Wet sediment analysis system)
- ii. Core laboratory and analysis with field core sampler and auger assembly
- iii. Digital weighing machine

Environmental Chemistry laboratory

1. UV Spectrophotometer
2. BOD incubator
3. Conductivity meter
4. DO Analyser
5. Mechanical homogenizer
6. Ultrasonicator
7. Muffle furnace
8. Distillation Unit
9. Sand bath

LIBRARY

A separate library and reading room for the students and staff members.

ACADEMIC PROGRAMMES

M.Sc. Dissertation (Geology and Environmental Science)



Separate dissertation subjects are given to each student. By the end of semester – IV they have to submit a dissertation thesis which are evaluated by the external experts.

PH. D. PROGRAMMES

Five students are registered under Dr. M. G. Thakkar (the Details are as under)

Serial No.	Name of the student	Title of the Research
1	Ms. Bhanu Goyal (Awarded)	Palaeoseismic studies of Eastern Rann of Kachchh, Western India
2	Mr. Anil H. Gor	Characteristics of P and S waves in the Quaternary sediments of Banni, Kachchh
3	Ms. Ngangom Mamata Devi	Late Quaternary Tectonic and Seismic History of Island Belt Fault system of Kachchh, Western India”
4	Ms. Swati Dave	Palaeoenvironmental and Depositional History of Late Quaternary Sequences around Pachchham Island, Kachchh, Western India
5	Mr. Manoj Dangwal	Blasting attenuation on rock masses: Special Reference to underground space technology

GUJCOST – GUJARAT COUNCIL ON SCIENCE AND TECHNOLOGY FELLOWSHIP TO THE M.SC. STUDENTS (Student’s SCI-TECH)

(All completed)

Sr. No.	Name of the project	Students Involved	Guide/ Mentor
1	<i>Correlation of 2001 Bhuj Earthquake deformation features with the existing Geological structures in Epicentral region: A hazard mitigation perspective</i>	1. Meet Parmar 2. Mayur Vyas	Dr. M. G. Thakkar (total value: INR 23,000.00)
2	<i>An appraisal of noise level in different impact zones of Bhuj urban agglomeration, Kachchh</i>	1. Mr. Kamalkant	Dr. Anjan Kumar Prusty (GUIDE) (total value: INR 16,000.00)
3	<i>Impact of coastal Industrial Development on the seawater quality in some selected coastal stretch of Kachchh District, Gujarat</i>	1. Miss Vidhisha Vijaykumar 2. Miss Eshita Nair 3. Miss Alka Shakya	Dr. G. A. Thivakaran (GUIDE) (total value: INR 25,000.00)

ACADEMIC COLLABORATION IN INDIA:

Dr. M. G. Thakkar

Dr. Thakkar has an active collaboration with Dr. C. P. Rajendran, Dr. Kusala Rajendran, Dr. Bose of IISc, Bangalore and also with the active collaborative work with Dr.



RESEARCH PAPERS (OF ALL THE FACULTIES)

(1) Dr. M. G. Thakkar

Year-2010

1. Himansu Kumar Kundu, **M. G. THAKKAR** (2010) : Elemental Concentration of U, Th and K in Tectonically Active Regions of Khari River Basin, Kachchh, Western India (Accepted in the second International conference on *Applications of radiotracers in Chemical, Environmental and Biological Sciences to be held during 7-13 Nov 2010*)
2. **M. G. THAKKAR**, Bhanu Goyal, D. M. Maurya and L. S. Chamyal (2010): Internal geometry of reactivated and non-activated sandblow craters related to 2001 Bhuj earthquake, India: A modern analogue for interpreting paleosandblow craters. (*Communicated to Journal of Geological Soc. of India*)
3. Himansu Kumar Kundu, **M. G. THAKKAR**, R. H. Biswas and A. K. Singhvi (2010) OSL dating of sediments offset by neotectonic reactivation of Katrol Hill Fault (KHF) in Khari river basin, SE of Bharasar, Kachchh, Western India, (*Accepted in Geochronometria*)

Year-2009

1. H. K. Kundu, M. P. Chougankar, T. K. Gundu Rao & **M. G. THAKKAR** (2009), Luminescence Dating Of Fault Gouge Of Kodki Transverse Fault Within The Khari River Basin Of Central Mainland Kachchh, Western India *National conference on TL Application at Kolkata* 19-21 Feb 09 (National)

Year-2008

2. D.M. Maurya, **M.G. THAKKAR**, A.K. Patidar, S. Bhandari, B. Goyal, and L.S. Chamyal(2008); Late Quaternary Geomorphic Evolution of the Coastal Zone of Kachchh, Western India, *Jour. Coastal Res.* 24-3 pp. 746-758
3. D. M. Maurya, **M. G. THAKKAR**, N.Khonde, and L. S. Chamyal (2008), Geomorphology of the Little Rann of Kachchh, W. India: Implication for basin architecture and Holocene palaeo-oceanographic conditions. *Zeitschrift fur Geomorphologie*. (In Press)
4. A. K. Patidar, D. M. Maurya, **M. G. THAKKAR** and L. S. Chamyal (2008), Evidence of neotectonic reactivation of the Katrol Hill Fault (KHF) during late Quaternary and its GPR characterization, *Current Science*, 94, pp. 338-346.
5. C.P. Rajendran, K. Rajendran, T. Machado, S. Srinivasalu, P. Aravazhi, **M. G. THAKKAR** (2008) The previous Indian Ocean tsunamis: Evidence from the Indian Coast and the Andaman-Nicobar Islands, *International Symposium on the Restoration programme from giant Earthquakes and Tsunamis January 22-24, 2008 PHUKET, THAILAND*.
6. Rajendran, C. P., K. Rajendran, **M. THAKKAR**, and B. Goyal (2008), Assessing the previous activity at the source zone of the 2001 Bhuj earthquake based on the near-source and distant paleoseismological indicators, *J. Geophys. Res.*, 113, B05311, doi: 10.1029/2006JB004845.

Year-2006

7. A. K. Patidar, D. M. Maurya, **M. G. THAKKAR** and L. S. Chamyal (2006): Fluvial geomorphology and neotectonic activity based on field and GPR data, Katrol hill range, Kachchh, western India, *Quaternary International* .159 (2006) 74-92.



8. **THAKKAR, M.G.** (2006) Tsunami: Facts and Factual: A case study of 26th December 2004 South East Asia Tsunami *The Orient Vision, Dec. 2006*.
9. R.K. Gartia, Th. Basanta Singh, U. Ranita, S. Nabadwip Singh, **M.G. THAKKAR** and M.P. Chougankar (2006): Optically Stimulated Luminescence dating of sand blows of Kachchh, Gujarat (India) and its implications in Paleoseismology (*Communicated to JESS*).
10. Maurya, D. M., Goyal, B. P., Patidar, A., Mulchandani, N., **THAKKAR, M.G.** and Chamyal, L.S. (2006) Ground Penetrating Radar Imaging of two large Sand blow craters related to 2001 Bhuj Earthquake, Western India. *Journal of Applied Geophysics* 60, 142-152.
11. **THAKKAR, M.G.**, Bhanu Goyal, Patidar, A., Maurya, D. M. and Chamyal, L.S. (2006): Bedrock gorges in the central mainland Kachchh: Implications for landscape evolution *Jour. Earth Sys. Sci.* 115 No.2 pp.1-8
12. **THAKKAR, M. G.** and Bhanu Goyal (2006): Historic Submergence and Tsunami Destruction of Nancowrie, Kamorta, Katchall and Trinket Islands of Nicobar District: Consequences of 26th December 2004 Sumatra-Andaman earthquake. *Current Science* Vol 90 No. 7 pp. 989-994.
13. Patidar, A. K., Maurya, D. M., **THAKKAR, M. G.** and Chamyal, L. S. Shallow subsurface characterization of active faults using Ground Penetrating Radar: example of Katrol Hill Fault (KHF), Kachchh, western India. *11th International Conference on Ground Penetrating Radar, 2006 Columbus USA*.

Year-2005 (All International)

14. Maurya, D. M., Patidar, A., Mulchandani, N., Goyal, B. P., **THAKKAR, M.G.**, Bhandari, S., Vaid, S. I., Bhatt, N. and Chamyal, L. S. (2005) Need for initiating G.P.R. studies along active faults in India: Examples from Kachchh. *Current Science*, vol.88, No.2, pp. 231-240.

Year-2004

15. **THAKKAR, M.G.** and Bhanu Goyal (2004): On Relation between Magnitude and Liquefaction Dimension at the Epicentral zone of 2001 Bhuj Earthquake. *Current Science*, Vol. 87, No.6

Year-2003

16. Maurya, D.M., **THAKKAR, M.G.**, Chamyal, L.S. (2003): Quaternary geology of the arid zone of Kachchh: Terra incognita. *Proc. Ind. Nat. Sci. Acad.* 69, A, No.2, March 03. pp.123-135
17. Maurya, D.M., Bhandari, S., **THAKKAR, M.G.** and Chamyal, L.S. (2003): Late Quaternary fluvial sequences of southern mainland Kachchh, western India *Current Science* Vol.84, No.8, pp. 1057-1064.
18. McCalpin, J.P. and **THAKKAR, M.G.** (2003): 2001 Bhuj-Kachahh Earthquake: Primary Structures and their Relation with the Neotectonics and Regional structures, Gujarat, Western India, *Annali di Geofisica, Special issue in Paleoseismology*, INGV-Italy, Vol.46, No.5, pp.937-956.

Year-2002

19. Rajendran, K., Rajendran, C.P., **THAKKAR, M.G.**, and Gartia, R. (2002): The sand blows from the 2001 Bhuj earthquake reveal clues on past seismicity. *Current Science* Vol.83 No.5, pp.603-610.



20. Maurya, D.M., **THAKKAR, M.G.**, Chamyal, L.S. (2002): Implications of transverse fault system on tectonic evolution of Mainland Kachchh, Western India *Current Science* Vol.85, No. 5, pp.661-667

Year-2001

21. Rajendran, K., Rajendran, C.P., **THAKKAR, M.G.**, and Tuttle, M.P. (2001): 2001 Kachchh (Bhuj) earthquake: Coseismic surface features and their significance, Vol.80 No.11, *Current Science*. pp. 1397-1405.
22. **THAKKAR, M.G.**, Maurya, D.M., Rachna Raj and Chamyal, L.S. (2001): Morphotectonic analysis of Khari River Basin of Mainland Kachchh: Evidence for Neotectonic activity along transverse fault. *Bull.Ind.Geol.Assoc. Structure and Tectonics of Indian Plate*, Chandigarh, pp.205-220,
23. Rachna Raj., Maurya, D.M., **THAKKAR, M.G.**, and Chamyal, L.S. (2001): Geomorphic evidence of rejuvenation of SE Aravalli Mountain Range during Quaternary, *Bull.Ind.Geol.Assoc. Structure and Tectonics of Indian Plate*, Chandigarh, pp.197-204.
24. Tuttle, M.P., Rajendran, C.P., Rajendran, K., and **THAKKAR, M.G.** (2001): Liquefaction Features induced by the Republic Day Earthquake, India, and Comparison with Features related to the 1811-1812 New Madrid, Missouri Earthquakes. *American Geophysical Union, Transactions, EOS*. Vol.82.

Year-1999

25. **THAKKAR, M.G.**, Maurya, D.M., Rachna Raj and Chamyal, L.S. (1999): Quaternary Tectonic history and terrain evolution of the area around Bhuj, Mainland Kachchh, Western India. *Jour. Geol. Soc. India*, Vol.53, No.5, pp. 601-610.

Year-1996

26. Chamyal, L.S., Kaur, M., **THAKKAR, M.G.** (1996): Usefulness of incompatible elements and correlation coefficient patterns in interpreting the petrogenetic aspects of the amphibolites of Kumaun Himalaya, *Jour. Min. Soc. Ind.* Vol.29, No.1, pp 50-59.

ABSTRACTS:

Year-2009

1. **M. G. THAKKAR** (2009), Neotectonics and Palaeoseismic Review of Kachchh Landscape, Western India: Typical rift marginal basin, *7th International Conference on Geomorphology (ANZIAG), Ancient Landscape-Modern Perspectives, 6-11th July 2009*, Melbourne, Australia.
2. Parul Joshi, Goyal Bhanu and **M. G. THAKKAR** (2009), Morphotectonic Implications of Chang and Adhoi River Basins of South Wagad, Kachchh, Western India, *National Conference on Quaternary processes at Uni. Of Lucknow, Lucknow*

Year-2007

3. **THAKKAR, M. G.** (2007): Review of Paleoseismology of Kachchh: A Significant intra-plate seismic source region in the world, *International Conference on Geoenvironment: Challenges Ahead: University of Jammu, April 23-25 2007*
4. **THAKKAR, M. G.** (2007): Ground deformation, coastal submergence and tsunami destruction at Andaman and Nicobar islands: consequences of 2004 Andaman-Sumatra Earthquake *International Conference on Geoenvironment: Challenges Ahead: University of Jammu, April 23-25 2007*

Year-2006



5. Kundu, H. K. Gundu Rao T. K. and **THAKKAR, M. G.** (2006): ESR dating of fault gouge of Kodki Fault from Katrol hill range, Kachchh, Gujarat, India *International conference on TL dating at Singapore*
6. **THAKKAR, M. G.** (2006) 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, *Tsunami Geology Workshop at Anna University, Chennai.*
7. **THAKKAR, M. G.** (2006): Review of Paleoseismology in Kachchh comparing 1819 Kachchh and 2001 Bhuj Earthquakes. *Seminar on Paleoseismology and Active Faults in Gujarat at ISR, Gandhinagar on 16th September 2006.*
8. **THAKKAR, M. G.** (2006) Morphological Response to Quaternary tectonic activity along various fault system in Kachchh, Western India, *Conference volume, WIHG, Dehradoon, 10-11 Nov. 2006.*

Year-2004

9. **THAKKAR, M. G.** and Zollweg, J. E. (2004): Kachchh Telemetry Network and Current Seismicity of Kachchh. *MEAI-A'bad chept. Seminar on 'Opening of a New Mine, Apr. '04*
10. **THAKKAR, M. G.** and Bhanu Goyal (2004): Liquefaction database of 2001 Bhuj earthquake and its significance in paleoseismology of Kachchh. *MEAI-A'bad chept. Seminar on 'Opening of a New Mine, Apr. '04*

Year-2003

11. **THAKKAR, M.G.,** (2003): On Relation between Magnitude and Liquefaction Dimension at the Epicentral zone of 2001 Bhuj Earthquake. Int'l Wshp on Earth System Processes Related to Gujarat Earthquake using Space Technology, *IITK int'l workshop Abstract vol.*
12. **THAKKAR, M. G.** and Bhanu Goyal (2003): Importance of liquefaction studies in Paleoseismology: A case study from 2001 Bhuj Earthquake. *At National Group Discussion on Active Tectonics in Western India, M.S.Uni. Baroda.*
13. **THAKKAR, M. G.** and Bhanu Goyal (2003): Influence of Earthquakes on Holocene Sediments: A Case Study from Kachchh Earthquakes, Western India. *20th Convention of Indian Asso. Of Sedimentologists, D/o Geology, H.N.B. Garhwal Uni. Srinagar, Garhwal.*
14. **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.*

Year-2001

15. Tuttle, M.P., Johnston, A., Patterson, G., Tucker, K., Rajendran, K., Rajendran, C.P. and **THAKKAR, M.G.** (2001): Liquefaction induced by the Republic Day Earthquake, India. *Abstract, AGU meeting.*
16. **THAKKAR, M. G.,** C.P.Rajendran and Kusala Rajendran (2001) The 2001 Bhuj-Kachahh 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.*

(2) Dr. Subhash Bhandari

(With impact factors of journals)



1. Maurya, D. M., Thakkar, M. G., Patidar, A. K., **Bhandari, S.**, Goyal, B. and Chamyal, L.S. (2008). Late Quaternary geomorphic evolution of the coastal zone of Kachchh, Western India. **Journal of Coastal Research**, v. 24(3), 746-758. (IF – 0.464)
2. Juyal, N., Chamyal, L. S., **Bhandari, S.**, Bhushan, R. and Singhvi, A. K. (2006). Continental record of southwest monsoon during the last 130ka: evidence from southern margin of Thar Desert, India. **Quaternary Science Review**, v.25, 2632-2650. (IF – 4.110)
3. **Bhandari, S.**, Maurya, D. M. and Chamyal, L. S. (2005). Late Pleistocene alluvial plain sedimentation in lower Narmada valley, western India: Palaeoenvironmental implications. **Journal of Asian Earth Sciences**, v. 24, 433-444. (IF – 1.714)
4. Maurya, D. M., Patidar, A. K., Mulchandani, N., Goyal, B., Thakkar, M. G., **Bhandari, S.**, Vaid, S. I., Bhatt, N. P. and Chamyal L. S. (2005). Need for initiating Ground Penetrating Radar (GPR) studies along active faults in India: an example from Kachchh. **Curr. Sci.**, v. 88, 231-240. (IF – 0.567)
5. Mulchandani, N., **Bhandari, S.**, Rachna Raj and Vaid, S. I. (2005). Alluvial fan sedimentation in Kara and Heran river valleys of lower Narmada basin, western India. **Jour. Geol. Soc. Ind.**, v. 65, 451-458. (IF – 0.355)
6. Juyal, N., Chamyal, L. S., **Bhandari, S.**, Maurya, D. M. and Singhvi, A. K. (2004). Environmental changes during Late Pleistocene in the Orsang river basin, western India. **Jour. Geol. Soc. India.**, v. 64, pp. 471-479. (IF – 0.355)
7. Rachna Raj, Mulchandani, N., **Bhandari, S.**, Maurya, D. M. and Chamyal, L. S. (2004). Channel shifting of a highly sinuous meandering river in alluvial plain, Vishwamitri River, mainland Gujarat. **Curr. Sci.**, v. 86, 1647-1653. (IF – 0.567)
8. Rachna Raj, Mulchandani, N., **Bhandari, S.**, Maurya, D. M. and Chamyal, L. S. (2003). Evidence of a Mid-Late Holocene seismic event from Dhadhar river basin, Gujarat alluvial plain, western India. **Curr. Sci.**, v. 85, 812-815. (IF – 0.567)
9. Maurya, D. M., **Bhandari, S.**, Thakkar, M. G. and Chamyal, L. S. (2003). Late Quaternary fluvial sequences of southern mainland Kachchh, western India. **Curr. Sci.**, v. 84, 1056-1064. (IF – 0.567)
10. Rachna Raj, **Bhandari, S.**, Maurya, D. M. and Chamyal, L. S. (2003). Geomorphic indicators of active tectonics in Karjan river basin, lower Narmada valley, western India. **Jour. Geol. Soc. Ind.**, v. 62, pp. 739-752. (IF – 0.355)
11. Chamyal, L. S., Maurya, D. M., **Bhandari, S.** and Rachna Raj (2002). Late Quaternary geomorphic evolution of the lower Narmada valley, western India: implications for neotectonic activity along the Narmada-Son fault. **Geomorphology**, v. 46, 177-202. (IF 1.854)
12. **Bhandari, S.**, Rachna Raj, Maurya, D. M. and Chamyal, L. S. (2001). Formation and erosion of Holocene alluvial fans along the Narmada-Son fault near Rajpipla in lower Narmada basin, western India. **Jour. Geol. Soc. Ind.**, v. 58, pp. 519-531. (IF - 0.355)



(3) Dr. Mrugesh Trivedi

1. Verma, R.J., **Trivedi, M.H.** and Chinoy, N.J. Amelioration by clack tea extract of sodium fluoride induce hemolysis of human red blood cell corpuscles. *Fluoride*, 39 (4) 261-265, 2006. (IF: 0.42)
2. **Trivedi, M.H.**, Verma, R.J. and Chinoy, N.J. Amelioration by black tea extract of changes induced by sodium fluoride in protein content of liver and kidney in mice. *Fluoride*, 39 (4) 269-273, 2006. (IF: 0.42)
3. **Trivedi, M.H.**, Verma, R.J. and Chinoy, N.J. Amelioration by black tea of sodium fluoride-induced changes in protein content of cerebral hemisphere, cerebellum and medulla oblongata in brain region of mice. *Acta pol Pharma-Drug Res.*, 64 (3) 221-225, 2007. (IF: 0.22)
4. Verma, R.J., **Trivedi, M.H.**, Keswani, H., Choksi, P. and Sangai, N. Ameliorative effect of three medicinal plants (p. fraternus, termenelia a., and moringa oleifera) on arsenic trioxide induced alteration of lipid peroxidation and protein contents in chicken liver homogenate; an in vitro study. *Acta pol Pharma-Drug Res.*, 63 (5) 417-421, 2007. (IF: 0.22)
5. Verma, R.J., **Trivedi, M.H.** and Chinoy, N.J. Black tea amelioration of sodium fluoride-induced alterations of DNA, RNA and protein contents in the cerebral hemisphere, cerebellum and medulla oblongata regions of mouse brain. *Fluoride*, 40 (1) 7-12, 2007. (IF: 0.42)
6. **Trivedi, M.H.**, Verma, R.J., Chinoy, N.J., Patel, R.S., and Sathwara, N.G. Effect of high fluoride water on intelligence of school children in India. *Fluoride*, 40 (3) 168-173, 2007. (IF: 0.42)
7. **Trivedi, M.H.**, Verma, R.J., and Chinoy, N.J. Black tea amelioration of sodium fluoride-induced effects on DNA, RNA, and protein contents of liver and kidney and on serum transaminase activities of Swiss Albino Mice. *Fluoride*, 41 (1) 61-66, 2008. (IF: 0.42)
8. **Trivedi, M.H.**, Verma, R.J., and Chinoy, N.J. Mitigation of Sodium fluoride induced toxicity in mice brain by black tea infusion. *Fluoride*, 42 (1) 31-35, 2009. (IF: 0.42)

Communicated in referred journals:

9. Trivedi, M. H., Verma, R.J., and Chinoy, N.J. Sodium fluoride induced oxidative stress in mice brain and its amelioration by black tea extract.
10. Lalwani, D., Gor, M. and Trivedi, M. Effect of lead on Red Blood Corpuscle: An in vitro study. (M.Sc. Final Year student's work)
11. Salat, V., Gor, M. and Trivedi, M. To evaluate the lead contamination on road sides of Bhuj, Gujarat, India due to heavy transportation. (M.Sc. Final Year student's work)
12. Gor, N., Gor, M. and Trivedi, M. Study the co-relation of kidney stone and water quality in Bhuj, Gujarat, India. (M.Sc. Final Year student's work)



(4) Dr. Suhas Vyas

1. Joshi A. J., S. J. Vyas. A study of distribution and ecological characteristic of some halophytic plants in Bhal region. "International Journal of Biodiversity Science, Ecosystem Service & Management. (Paper accepted).
2. Joshi A. J., S. J. Vyas. Salt-hormone interaction on seed germination of *Chloris barbata*. In correspondence with "International journal of bioscience reporter", Bhavnagar.

CONFERENCES/ SEMINARS AND WORKSHOPS (ALL FACULTIES)

(1) Dr. M. G. Thakkar

WORKSHOP COORDINATED:

1. 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)

Workshops and Group Discussions

- 1 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**"
- 2 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.
- 3 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 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**"
- 2 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.
- 3 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.



- 4 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
- 5 Attended a district level seminar on **ICMAM** (Integrated Coastal and Marine Area Management) Plan for Gulf of Kachchh held at **BHUI** on 7th Sept. 2000.
- 6 Presented at a seminar on "**Fossil Occurrences in Lignite bearing Tertiary Formations in Gujarat**" held by Mining Engineering Association of India - Ahmedabad Chapter at **Panandhhro, Kachchh** on 13th April 2003.

(2) Dr. Subhash Bhandari

1. **Quaternary Carbonate Deposits of Saurashtra and Kachchh, Gujarat**, field workshop sponsored by Department of Science and Technology (DST), New Delhi and organized at Diu by the Department of Geology, The Maharaja Sayajirao University of Baroda, Vadodara.
2. **Training on Remote Sensing and GIS**, Laboratory Workshop at Remote Sensing and GIS Laboratory, CEPT University, Ahmedabad.
3. **Training Programme on Fluvial Systems**, field workshop sponsored by Department of Science and Technology (DST), New Delhi and organized the Department of Geology, The Maharaja Sayajirao University of Baroda, Vadodara.
4. **Structure, Tectonics and Mesozoic Stratigraphy of Kachchh**, Contact Programme cum Field Workshop sponsored by Department of Science and Technology (DST), New Delhi and organized at Bhuj by the Department of Geology, The Maharaja Sayajirao University of Baroda, Vadodara.
5. **Advanced Training in Palaeobotany**, Field cum Training Programme organized by Birbal Sahni Institute of Palaeobotany, Lucknow.
6. **PAGES Training Workshop on Palaeoclimatic Methods**, training workshop held at Indian Institute of Tropical Meteorology (IITM), Pune.

(3) Dr. Mrugesh Trivedi

ORGANISED ONE DAY SEMINAR ON

“ENVIRONMENTAL PROTECTION AND INDUSTRIAL DEVELOPMENT: LAW PERSPECTIVE” ON 8TH APRIL 2010 AT THE KSKV KACHCHH UNIVERSITY.

International conference/seminar/workshop/symposium

Year	Venue	Paper presented on
9-11 th Oct., 2006	Gwalior, India	Black tea ameliorates sodium fluoride induced changes in protein content in liver and kidney of mice.
6-7 th Oct., 2007	Bangalore, India	Black tea ameliorates sodium fluoride induced lipid peroxidation in cerebral hemisphere region of mice brain.



29-31 st Jan., 2009	Ahmedabad, India	Effect of fluoride on IQ of school children.
4-7 th Nov. 09	Hyderabad, India	Effect of fluoride and iodine on IQ of school children in Abdasa District of Bhuj, Gujarat.
6-8 th Dec. 09	Ahmedabad, India	Effect of port activity on quality of water and sediments at Mundra

National conference/seminar/workshop/symposium

Year	Venue	Title of Presentation
5 th Dec. 2004	Kolkata, India	Bioequivalence study of fenofibrate formulation in normal healthy Indian male subjects. 56 th Indian Pharmaceutical Congress (IPC)
28-29 th Dec., 2006	Indore, India	Toxicological effect of sodium fluoride on DNA, RNA and protein contents in different part of brain in Swiss albino mice and its amelioration by black tea extract.
24-25 th Feb., 2007	Ahmedabad, India	Analysis of Variance (ANOVA) and post Hock test is more appropriate for the assessment of multiple experiment groups.
11 th March, 2007	Patan, India	Black tea extract ameliorates sodium fluoride (NaF) induce changes on different types of protein in mice brain.
9 th March, 09	Rajkot, India	Biodegradable plastic a sustainable solution to reduced non-degradable mass of earth.
9 th March, 09	Rajkot, India	Biofertilizers the sustainable solution for the growing agriculture field.
9 th March, 09	Rajkot, India	Bio-remediation the most powerful tool for the management of petroleum's hydrocarbon.
9 th March, 09	Rajkot, India	A case study of environmental biotechnology – bioleaching.
9 th March, 09	Rajkot, India	Biogas production-the ideal utility of natural resources.
9 th March, 09	Rajkot, India	Line of drug therapy for airborne disease – tuberculosis.
9 th March, 09	Rajkot, India	Epidemic vector borne disease- malaria & its line of treatment.

ATTENDED

Oct, 2004	Ahmedabad	Workshop on Analytical Instrumentation in Pharmaceutical Sciences – A Practical Training Course. At B.V. Patel PERD Centre.
Oct, 2005	Ahmedabad	Seminar on modern laboratory techniques at Gujarat Cancer and Research Institute GCRI-Ahmedabad, India
Feb, 2005	Nanded,	NCBCNFTU (National Conference on



	Maharashtra	Bioactive Compounds: New Frontiers and Therapeutic Usage), Nanded, Maharashtra, India
Feb, 2007	Ahmedabad	One day seminar on: Frontiers in Biomedical Technology” Gujarat University Ahmedabad, India.
Feb, 2007	Ahmedabad	One day Seminar on “Save the Girl Child” Gujarat University, Ahmedabad, India
Feb, 2009	Bhuj	National Symposium on Prosopis: Ecological, Economic Significance and Management Challenges, at GUIDE (Gujarat Institute of Desert Ecology)
Feb, 2009	Bhuj	Gujarat Economics Association 39 th Annual Conference
Sep, 2009	Gandhinagar	Biodiversity monitoring workshop, Gujarat, Forest Department.
Dec, 2009	Bhuj	Environmental education and awareness program
Dec, 2010	Rajkot	Biochemistry a global approach from molecules to cell.

(4) Dr. Suhas Vyas

Paper Presentations

1. Presented a paper on “**Bhal Wetland Flora – Biodiversity, mineral composition and their relationship**” in XXII Gujarat Science Congress- 2008 organized by GUJCOST and Bhavnagar University at Department of Life Sciences, Bhavnagar University, Bhavnagar (March 2008)
2. Presented a paper entitled “**Biodiversity of coastal flora of Bhal region**” in the conference organized by Bhavnagar University and Sarva Vidhyalaya Kelavani Mandal Kadi, Gandhinagar campus, Nov. 2004.
3. Presented a paper on “**Effects of salts on seed germination *Salicornia brachiata***” at state level seminar on “Plant Morphogenesis” sponsored by UGC held at S. M. Panchal Science College, Talod (Sep. 2004).
4. Presented a paper entitled “**Salt accumulation.... Bhal wetland**” in Science Excellence-2008 organized by Department of Botany, Gujarat University and GUJCOST, on 5th January.

Workshops, Seminars and Conferences:



1. Participated at “**The International Conference on Coastal and Ocean Technology**”, held at National Institute of Ocean Technology, Chennai (Dec. 2003).
2. Participated in UGC sponsored one day state level seminar on “**Environmental Problems of Saurashtra and Kutch- Challenges and solutions**” M & N Virani Science College & Shree Yogiji Maharaj Arts and Commerce College, Rajkot (Sep. 2004).
3. Participated at the seminar on “**Current Trends in Natural Sciences**” held at Bhavnagar university organized by Faculty of Science, Bhavnagar (Feb. 2004).
4. Attended workshop on “**Plant identification and documentation**” held by M.S. University, Baroda – Faculty of Science, Department of Botany, Baroda (Dec. 2000).
5. Short course on **Agriculture microbes bioinformatics**, 2009. Sponsored American society of microbiology. Held in Dept. of Botany, School of Sciences, Gujarat University.
6. **Science Excellence-2009** organized by Department of Botany, Gujarat University and GUJCOST, on 10th January.
7. UGC sponsored training on taxonomy- **A clinical science of promising application**, 2009 on 21-29 September.
8. A workshop on **Sprouting, documentation dissemination of grass root innovation and traditional knowledge** sponsored by NIF Ahmedabad on July 16, 2009.
9. UGC sponsored student project convention sponsored by Association of Indian universities on 3rd October
10. UGC sponsored training on **Advances in genetics and application of molecular markers** in Botany in Dept. of Botany, Gujarat University (7-12 September, 2009).
11. Workshop on “**HPLC, HPTLC & GAS CHROMATOGRAPHY / GC-MS**” held at SICART, Sardar Patel Centre for Science and technology charutar vidya mandal, Vallabh vidyanagar. sponsored by DST, Govt. of India, on 8-10 September, 2009.
12. ISTE approved training programme on “**Environmental Monitoring and Analysis**” held at Institute of Technology, Nirma University, Ahmedabad on 21st to 25th June, 2010.

Experience :

- May 2008-April 2010: EHS (Environment Health Safety) department as environmental scientist and also worked in R & D for developing process **treatment of various effluents** in Agrocel Industries Ltd, Bhavnagar (Gujarat).



- 2003-2008: Over 4 years experience as **Junior Research Fellow** in the project supported by MoEF (Govt. of India, New Delhi) on “**Biodiversity and economic utility of Coastal Flora of Bhal Wetland**”.
- Adhoc **lecturer** in Shri D. J. Shah Parivar Science College, Dholka, Gujarat University from June 2003 to May 2006.
- Selected as visiting **lecturer** by committee on 27/8/04 in Botany at Sir P. P. Institute of Science, Bhavnagar University, Gujarat.