

GOVIND CHAKRAPANI

Dean, School of Ecology & Environment Studies
Nalanda University, Rajgir, Bihar



Fellow of National Academy of Sciences of India (FNASc)

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PERSONAL INFORMATION

Born: 18th May 1963

Citizenship: Indian

Marital status: Married, Wife-Purnima, Son-Rahul and Daughter-Anjali

RESEARCH OBJECTIVE

To Understand Recent Earth Surface Processes and Human Impacts on Environment.

RESEARCH AREA

Geochemistry, Groundwater, Chemical Sedimentology, Water, Air and Land Environment, Global Climate, Global water Cycle, Himalayan Environment, Earth Resources, Hydrological Processes

ACADEMIC WORK

2017-	Nalanda University, Rajgir, Bihar Dean, School of Ecology & Environment Studies
2008 - 2016	INDIAN INSTITUTE OF TECHNOLOGY ROORKEE DEPARTMENT OF EARTH SCIENCES Professor
2003 - 2008	Associate Professor
1996 - 2003	Assistant Professor
	➤ Research Publications : 71+ (Citations: 1372, h-index: 19, i-index: 28)
	➤ Theses Supervision : Ph. D: 13 (Completed), M.Tech.: 29, M.Sc.: 20
	➤ Research Projects : 12 (Total Funds: Rs. 35 million)
	➤ Visits Abroad :
	USA 1990 (Smithsonian Institution, USA)
	USA 1991 (University of Delaware)
	France 1999 (University Paul Sabatier, Toulouse and IPG Paris)
	France 2000 (IPG, Paris)
	Bangladesh 2000 (Jehangir University)
	France 2001 (IPG, Paris)

USA 2003 (University of Arizona)
Germany 2004 (Ruhr University Bochum)
France 2005 (University Paul Sabatier, Toulouse)
Australia 2006 (University of Melbourne)
Sweden 2007 (Stockholm University)
Taiwan 2007 (IES, Academia Sinica, Taipei)
France 2008 (LMTG, Toulouse)
Taiwan 2009 (IES, Academia Sinica, Taipei)
China 2010 (Nanjing University, Nanjing)
China 2010 (Tongji University, Shanghai)
China 2011 (Tongji Univ., Shanghai, Ocean Univ. of China, Qingdao)
China 2011 (Nanjing University)
USA 2012 (University of Washington)
China 2012 (Tongji University)
Vietnam 2013 (IGCP, Hanoi)
USA 2014 (University of Washington, Seattle)
USA 2015 (University of Washington, Seattle)

➤ **Commendations :**

Fellow, National Academy of Sciences, India (FNASc, 2012)
National Geosciences (Mineral) Award
(Environmental Geosciences, 2005), Government of India
Certificate of Merit, Smithsonian Institution, USA, 1990

➤ **Journal Advisory Board :**

Gondwana Geological Magazine,
Journal of Geological Society of India

➤ **Courses Taught :**

Applied Geochemistry
Hydrogeology
Sedimentology
Thermodynamics and Phase Equilibria
Global Climate
Environmental Geosciences
Hydrological Processes

➤ **Courses Developed :**

Global Climate, Environmental Geochemistry,
Global Biogeochemical Cycles, Applied Geochemistry,
Hydrogeology, Contaminant Hydrogeology, Marine Geology

➤ **Reviewer :**

Journals (Elsevier, Springer, ACS, IAHS, GSI, CS, HG, Eos, G-3, AGU etc.
Reviewed since 2006 = 120),

Project Proposals (DST, MoEF, NCAOR, CEFIPRA-France, MoES, Several Industries)

June-August - 2001 MAITRE DE CONFERENCE, IPG, PARIS
Associated Professor

1999 - 2000 UNIVERSITY PAUL SABATIER, TOULOUSE
INSTITUTE DE PHYSIQUE DU GLOBE, PARIS
Professor (Invitee) / Researcher

1993 - 1995 JAWAHARLAL NEHRU UNIVERSITY, NEW DELHI AND
INDIAN INSTITUTE OF TECHNOLOGY BOMBAY, MUMBAI
CSIR Pool Officer

1991 - 1992 HUNDSON RIVER FOUNDATION, UNIVERSITY OF
DELAWARE, USA
Research Scientist

1986 - 1991 JAWAHARLAL NEHRU UNIVERSITY, NEW DELHI
Research Fellow

EDUCATION

1991 JAWAHARLAL NEHRU UNIVERSITY, NEW DELHI, INDIA
Ph.D. Environmental Geochemistry

1990 SMITHSONIAN ENVIRONMENTAL RESEARCH CENTRE
EDGEWATER, MARYLAND, USA
Intern

1988 JAWAHARLAL NEHRU UNIVERSITY, NEW DELHI, INDIA
M. Phil. Environmental Geology (1st Division)

1985 INDIAN INSTITUTE OF TECHNOLOGY BOMBAY, MUMBAI
M.Sc. Applied Geology (1st Division)

1983 BERHAMPUR UNIVERSITY, BERHAMPUR, INDIA
B.Sc. Geology Honors (1st Division)

19 BERHAMPUR UNIVERSITY, BERHAMPUR, INDIA
I.Sc. Maths, Physics, Chemistry, Geology (1st Division)

19 ORISSA BOARD OF EDUCATION, INDIA
H.S.C. (1st Division) National Merit Scholarship 1979-85

WORK HISTORY ADMINISTRATION

2017-	Dean, School of Ecology & Environment Studies Nalanda University, Rajgir, Bihar
2016-2017	All IITs and IISc GATE 2017 Organizing Chairman, GATE 2017
2015-2017	Indian Institute of Technology Roorkee Chairman, GATE-JAM
2017-2020	Member, EAC (River Valley & Hydropower Projects, MoEF-CC)
2016-2018	Member (AC-NABET), Quality Council of India
2008-2011	Uttarakhand State Environment Expert Appraisal Committee (SEAC), Ministry of Environment and Forests, Govt. of India Chairman
2012-2014 2012	Department of Earth Sciences Research Committee Coordination Committee, 1 st Prof. R.S. Mithal Memorial Lecture, Department of Earth Sciences, IIT Roorkee Chairman
2012-2014	Indian Institute of Technology Roorkee Vice-Chairman, GATE-JAM
2001-Till Date 2008-Till Date 2015 2015 2011-2014 2010-2012 2006-2009 2005-2006 2005-2006 2000-2003	Department of Earth Sciences Geochemistry Laboratory Department of Earth Sciences Museum Department of Earth Sciences Staff Department of Earth Sciences Buildings & Maintenance Department of Earth Sciences Building Department of Earth Sciences Sedimentology Lab Department of Earth Sciences Stores Department of Earth Sciences Time Table Department of Earth Sciences Examinations Department of Earth Sciences Library Faculty-In-Charge
2015-2018 2016 2015 2015 2015	River Regulation Zones (MoEF), AC Member-Goa University Selection Committee, NIFFT, Ranchi (Environmental Engineering) Swachh Bharat Mission Indicators (QCI) Faculty Selection Committee, NIT Rourkela Faculty Selections Committee, Central University of Rajasthan Expert Member
2005-Till Date 2013 2013 2013 2004, 2006, 2009	Continuing Education Centre, IIT Roorkee Selection Committee, ISM Dhanbad Selection Committee, Thapar University, Patiala Selection Committee, ICFRE, Dehra Dun Institute Science Day Celebrations Chief Advisor / Deputy Chief Advisor / Advisor

VIT University, Vellore
Visiting Professor

Department of Earth Sciences, IIT Roorkee
Acted as Head

- 2012-2017 NCB-GATE and JAM-AB (MHRD)
2015-2016 Department Research Committee
2013-2016 Academic Council Indian School of Mines, Dhanbad
2013-2015 Institute Academic Research Committee
2014 Institute Green Committee
2011-2014 Department Finance Committee
2011 Core Group Uttarakhand State Action Plan on Climate Change (SAPCC)
2004-007 Department Research Committee
IPR Cell, IIT Roorkee
National Working Group, IGCP-581 Evolution of Asian River Systems
Scientific Advisory Board, Delta Institute Visakhapatnam
Technical Advisory Board, National Institute of Hydrology Roorkee
Board of Management, University of petroleum & Energy Studies, Dehra Dun
National Advisory Committee on National Seminar on "Recent advances and future challenges in Geochemistry and Geophysics: the Indian scenario" from 22 to 24 February, 2012 at BHU, Varanasi
2000-2004 Institute Library Committee
Member
- 2011 World Environment Day (5th June 2011), CSIR-CBRI, Roorkee
Guest of Honor
- 2016 - 2018 National Accreditation Board of Education & Training (NABET)
Accreditation Member
- IIT Kharagpur, JNU New Delhi,
Osmania University, University of Kerala,
Salim Ali Institute, Berhampur University,
IIRS Dehra Dun, HNB Garhwal University,
Sagar University, University of Kashmir,
VIT University Vellore, IIT Bombay Mumbai,
Anna University, University of Pune
Thesis Examiner
- UPSC, New Delhi,
CMFRI, ISM Dhanbad,
Department of Space (IISST, Thiruvananthapuram),
Guru Gobind Singh Indraprastha University,
New Delhi, WIHG Dehra Dun, NIT Rourkela
Selection Committee Advisor
- Banaras Hindu University, University of Kashmir, Srinagar
Course Examiner

ASSIGNMENTS ABROAD

Visiting Professor	State Key Laboratory of Marine Geology, Tongji University, Shanghai (China), November 2012 (Host: Prof. S.Yang)
Visiting Professor	State Key Laboratory of Marine Geology Tongji University, Shanghai, China 2011 (Host: Prof. S.Yang) Key Laboratory of Marine Geology, Ocean University of China, Qingdao, China, July 2011 (Host: Prof. D.Fan)
Visiting Professor	State Key Laboratory of Marine Geology Tongji University, Shanghai, China, July 2010 (Host: Prof. S.Yang)
Visiting Scientist	LMTG, Toulouse, France (June – July, 2008) (Host: Dr. B.Dupre, Director, OBS-MIP)
Visiting Scientist	Institute of Earth Sciences, Academia Sinica, Taipei, Taiwan 1-31 st Dec 2007 (Host: Prof. Bor-Ming Jahn)
Visiting Scientist	Stockholm University, Sweden, June-July, 2007 (Host: Dr. J. Routh)
Visiting Scientist	LMTG-CNRS-UPS Toulouse, France June-July, 2005 (Host: Dr. B. Dupre)
Visiting Scientist	(INSA-DFG) Ruhr University Bochum, Germany July-September, 2004 (Host: Prof. J. Veizer)
Visiting Professor	IPG-University of Paris VII, June-August, 2001 (Host: Prof. J. Gaillardet)
Visiting Scientist	UPS, Toulouse- IPG, Paris, France January-December, 1999 (Host: Dr. B. Dupre, Prof. J. Gaillardet and Prof. C.J. Allegre)
Research Scientist	University of Delaware, USA 1991-92 (Host: Prof. R.J. Gibbs)
Intern	Smithsonian Environmental Research Centre Edgewater, Maryland, USA April-August, 1990 (Host: Dr. T.E. Jordan)

RESEARCH PUBLICAITONS

(CITATIONS: 1172, h-index: 19, i-index: 28)

71. Khan, Y.A.M, Khan, B and and **G.J. Chakrapani** (Student Supervisor) (2016) Assessment of spatial variations in water quality of Garra river at Shahjahanpur, Gannga Basin, India, Arab. Jour. Geosci. DOI: 10.1007/s12517-016-2551-2, Springer publ.
70. Panwar, S. **G.J. Chakrapani** (Student Supervisor) (2016) Seasonal variability of grain size, weathering intensity and provenance of channel sediments in the Alaknanda River Basin, an upstream of Ganga River, India Environmental Earth Science, DOI: 10.1007/s12665-016-5815-y, Springer publ.
69. Panwar, S., Khan, Y.A. and **G.J. Chakrapani** (Student Supervisor) (2016) Grain size characteristics and provenance determination of sediment and dissolved load of Alaknanda River, Garhwal Himalayas, India. Environmental Earth Science, DOI: 10.1007/s12665-015-4785-9Springer publ.
68. Khan, M.Y.A. Daityari, S. and **G.J. Chakrapani** (Student Supervisor) (2016) Factors responsible for temporal and spatial variations in water and sediment discharge in Ramganga River, Ganga Basin, India, Environmental Earth Sciences, 75(4):1-18 Springer Publ. DOI 10.1007/s12665-015-5148-2
67. Khan, M.Y.A.,Muzamil, K., and **G.J. Chakrapani** (Student Supervisor) (2015) Assessment of surface water quality and its spatial variation: A case study of Ramganga River, India, Arabian Journal of Geosciences (Accepted on 18th September 2015), Springer Publ.
66. Khan, M.Y.A., Hasan, F., Panwar, S. and **G.J. Chakrapani** (Student Supervisor) (2015) Neural network model for discharge and water level prediction for Ramganga river catchment of Ganga Basin, India, Hydrological Sciences Journal (Taylor & Francis Publ.), DOI: 10.1080/02626667.2015.1083650
65. Frings, P.J., Clymans, W., Fontorbe, G., Gray, W., **G.J. Chakrapani**, G., Conley, D.J. and Rocha C, D.L. (Research Collaborator) (2015) Silicate weathering in the Ganges alluvial plain. Earth & Planetary Science Letters, 427: 136-148, Elsevier Publ.
64. Singh, Nandita and **G.J. Chakrapani** (Student Supervisor) (2015) ANN modeling of sediment concentration in the dynamic glacial environment of Gangotri in Himalaya, Environmental Monitoring and Assessment, DO 10.1007/s10661-015-4672-6, Springer Publ.
63. Singh, Anjali, S.K.Srivastav, Sudhir Kumar and **G.J. Chakrapani** (Student Supervisor) (2015) A modified DRASTIC (DRASTICA) model for assessment of groundwater vulnerability to pollution in an urbanized environment in Lucknow, India. Environmental Earth Science, DOI: 10.1007/s12665-015-4558-5, Springer-Verlag Publ.
62. Purushothaman, P. and **G.J. Chakrapani** (Student Supervisor) (2014) Phosphorus biogeochemistry in sediments of high altitude lakes, Kumaun Himalayas, India, Arab. Jour. Geosci. DOI 10. 1007/s12517-013-1234-5, Springer Publ.
61. Mishra, M. and **G.J. Chakrapani** (Student Supervisor) (2014) A Grain size model for role of tectonics and climate on sedimentation in Siwaliks in Mohand area, Journal of Geological Society of India, Vol. 84, 105-113, Springer Publ.
60. Ali, A., Asadollah, M, Reza, M.H., Mahdi, N. and **G.J. Chakrapani** (Student Supervisor) (2014) Carbonate diagenesis of the upper Jurassic succession (Oxfordian-Kimmerdgian) in the west of Binalaud-Eastern Albortz (NE Iran), Journal of Geological Society of India, 83 (3), 311-328, Springer Publ.

59. Panwar, S. and **G.J. Chakrapani** (Student Supervisor) (2013) Climate change and its influence on groundwater resources, *Current Science*, 105 (1): 37-46
58. Mehto, A. and **G.J. Chakrapani** (Student Supervisor) (2013) Spatio-temporal variation in the hydrochemistry of Tawa River, Central India: Effect of Natural and Anthropogenic Factors, *Environmental Monitoring and Assessment*, 185(12): 9789-9802, Springer Publ.
57. Choudhary, P., J.Routh and **G.J. Chakrapani** (Student Supervisor) (2013) A 100- year record of changes in organic matter characteristics and productivity in Lake Bhimtal in the Kumaon Himalaya, NW India, *Journal of Paleolimnology*, 49: 129-143, Springer Publ.
56. Purushothaman, P., and **G.J. Chakrapani** (Student Supervisor) (2012) Trace metals biogeochemistry of Kumaun Himalayan lakes, Uttarakhand, India, *Environmental Monitoring and Assessment*, 184 (5):2947-2965, Springer Publ.
55. Purushothaman, P., S.Mishra, A.Das and **G.J. Chakrapani** (Student Supervisor) (2012) Sediment and hydro biogeochemistry of lake Nainital, Kumaun Himalaya, India, *Environmental Earth Sciences*, 65: 775-788, Springer Publ.
54. Gupta,H., **G.J. Chakrapani**, K.Selvaraj and S-J Kao (Student Supervisor) (2011) The fluvial geochemistry, contributions of silicate, carbonate and saline-alkaline components to chemical weathering flux and controlling parameters: Narmada River (Deccan Traps), India. *Geochimica et Cosmochimica Acta* 75:800-824, Elsevier Publ.
53. Yadav, S.K. and **G.J. Chakrapani** (Student Supervisor) (2011) Geochemistry, dissolved elemental flux rates, and dissolution kinetics of lithologies of Alaknanda and Bhagirathi rivers in Himalayas, India, *Environmental Earth Sciences*, 62: 593-610, Springer Publ.
52. Das, S.K. and **G.J. Chakrapani** (Student Supervisor) (2011) Assessment of metal toxicity in soils and waters from Raniganj coalfield, India, *Environmental Monitoring and Assessment*, DOI: 10.1007/s10661-010-1618x, 177: 63-71, Springer Publ.
51. Viswanathan, M. and **G.J. Chakrapani** (Student Supervisor) (2010) Laboratory Experiments on River-Estuary Geonanomaterials, *Current Science*, 99(2): 213-215, Springer Publ.
50. Choudhary, P., J.Routh and **G.J. Chakrapani** (Student Supervisor) (2010) Organic geochemical record of increased productivity in Lake Naukuchiyatal, Kumaun Himalayas, India. *Environmental Earth Sciences*, 60(4): 837-843, Springer-Verlag Publ.
49. Tripathy, G.R., V.Goswami, S.K.Singh and **G.J. Chakrapani** (Research Collaborator)(2010) Temporal variations in Sr and ⁸⁷Sr/⁸⁶Sr of the Ganga headwaters: Estimates of dissolved Sr flux to the mainstream. *Hydrological Processes*, DOI: 10.1002/hyp.7572, 24: 1159-1171, Wiley Interscience Publ.
48. Dubey, P., V.Ravikant and **G.J. Chakrapani** (Student Supervisor) (2010) Strontium isotopic compositions in selected hot spring waters in northwestern Himalaya. *Himalayan Geology* 31 (1): 19-23
47. **G.J. Chakrapani** and R.K.Saini (Student Supervisor) (2009) Influence of monsoon on the variations in water discharge and sediment load in the Alaknanda and Bhagirathi rivers in Himalayas, India. *Journal of Asian Earth Sciences*, 35(6): 545-553, Elsevier Publ.
46. **G.J. Chakrapani**, R.K.Saini and S.K.Yadav (Student Supervisor) (2009) Chemical weathering rates in the Alaknanda-Bhagirathi river basins in Himalayas, India. *Journal of Asian Earth Sciences*, 34: 347-362, Elsevier Publ.
45. Choudhary,P., J.Routh and **G.J. Chakrapani** (Student Supervisor) (2009) Comparison of bulk organic matter characteristics in three Kumaun Himalayan Lakes, *Current Science*, 97(4): 372-375, Springer Publ.

44. Choudhary,P., J.Routh, **G.J. Chakrapani** and B.Kumar (Student Supervisor) (2009) Biogeochemical records of paleoenvironmental changes in Nainital lake, Kumaun Himalayas, India *Journal of Paleolimnology*, Springer Publ. 42(4): 571-580
43. Choudhary,P. J.Routh and **G.J. Chakrapani** (Student Supervisor) (2009) An environmental record of changes in sedimentary organic matter from Lake Sattal in Kumaun Himalayas, India. *Science of the Total Environment*, 407 (8) : 2783-2795, Elsevier Publ.
42. Jain, C.K., H.Gupta and **G.J. Chakrapani** (Student Supervisor) (2008) Enrichment and fractionation of heavy metals in bed sediments of river Narmada, India. *Environmental Monitoring and Assessment*, 141(1-3): 35-47, Springer Publ.
41. Skelton, A. L. Claesson, **G.J. Chakrapani**, C.Mahanta, J.Routh, M. Morth and P. Khanna (Research Collaborator) (2008) Coupling between seismic activity and groundwater chemistry at the Shillong Plateau, northeastern India. *Pure and Applied Geophysics*, 165:45-61 Birkhauser Verlag Publ.
40. Purushothaman, P., A.Soren and **G.J. Chakrapani** (Student Supervisor) (2008) Phosphorus fractionation in Nainital lake sediments. *Himalayan Geology*, 29(1): 73-79
39. Saini,R.K., S.Swain, A.Patra, G.J.Khanday, H.Gupta, P.Purushothaman and **G.J. Chakrapani** (Student Supervisor) (2008) Water geochemistry of three Himalayan lakes: Dal lake (Jammu & Kashmir), Khajjiar (Himachal Pradesh) and Nainital Lake (Uttarakhand). *Himalayan Geology*, 29(1): 63-72
38. Yadav, S.K., **G.J. Chakrapani** and Manoj K.Gupta (Student Supervisor) (2008) An experimental study on dissolution kinetics of calcite, dolomite, leucogranite and gneiss in buffer solutions at temperatures 25°C and 50°C, *Env.Geol.*53(8):1683-94, Springer Publ.
37. Purushothaman, P., and **G.J. Chakrapani** (Student Supervisor) (2007) Heavy metals fractionation in Ganga river sediments *Environ Monit and Assess* 132 :475-489, Springer Publ.
36. Subudhi,R.K., **G.J. Chakrapani** and R.K.Saini (Student Supervisor) (2007)Temporal variations in dissolved chemical composition in Ganga river at Rishikesh, India. *Jour. Geol.Soc.India* 69(6): 1305-131
35. Gupta, H. and **G.J. Chakrapani** (Student Supervisor) (2007) Temporal and spatial variations in water flow and sediment load in the Narmada River. *Current Science* 92 (5): 679-684 *Ind. Acad.Sci.*
34. Patra, A.K., N.Pendkar and **G.J. Chakrapani** (Student Supervisor) (2006) Heavy metals fractionation and mineralogy in sediments of Nainital lake, Kumaun Himalayas. *Jour.Geol.Soc.Ind.* 68:181-185
33. Saini, R.K., **G.J. Chakrapani** and A.K.Sen (Student Supervisor) (2006) Geochemical studies of groundwater in Saharanpur, Uttar Pradesh, *Jour. Geol. Soc. India* 68:50-58
32. Yadav, S.K. and **G.J. Chakrapani** (Student Supervisor) (2006) Dissolution kinetics of rock-water interactions and its implications. *Current Science* 90(7):932-937, *Ind. Acad.Sci.Publ.*
31. **G.J. Chakrapani** and J.Veizer (Research Collaborator) (2006) Source of dissolved sulphate in the Alakananda-Bhagirathi rivers in the Himalayas *Current Science* 90(4):500-503, *Ind.Acad.Sci.Publ.*
30. Maiti,S., N.K.Meena, S.J.Sangode and **G.J. Chakrapani** (Student Supervisor) (2005) Magnetic susceptibility studies of soils in Delhi. *Jour. Geol.Soc.Ind.*66 :667-672
29. Chakrapani,G.J. (2005) Osmium and strontium isotopic compositions in Ganga river sediments. In: *Hydrological Perspectives for Sustainable Development* (Allied Publ.), 990-996 pp

28. **G.J. Chakrapani** (2005) Book Review: Himalayan Orogen-Foreland Interaction. *Curr. Sci.* 89(10): 1765-66, *Ind.Acad.Sci.Publ.*
27. Gupta,H. and **G.J. Chakrapani** (Student Supervisor) (2005) Temporal and spatial variations in water flow and sediment load in Narmada River Basin, India: Natural and man-made factors. *Environmental Geology* 48:579-589 Springer-Verlag Publ.
26. **G.J. Chakrapani** and Jan Veizer (Research Collaborator)(2005) Dissolved inorganic carbon isotopic composition in the upstream Ganga River in Himalayas. *Curr.Sci.* 89(3):553-556 *Ind.Acad. Sci. Publ.*
25. **G.J. Chakrapani** (2005) Major and trace element geochemistry in upper Ganga river in Himalayas, India, *Environmental Geology* 48(2):189-201, Springer-Verlag Publ.
24. Vigier, N., B.Bourdon, E.Lewin, B.Dupre,S.Turner, **G.J. Chakrapani**, P.van Calsteren and C.J.Allegre (Research Collaborator) (2005) Mobility of U-series nuclides during basalt weathering: an example from Deccan Traps, India. *Chem.Geol.* 219(1-4):69-91, Elsevier Sci.Publ.
23. **G.J. Chakrapani**, Deepak Dhingra and Prasun Biswas (Student Supervisor) (2005) Chemical weathering by rivers in India. *IWRS Journal* 25(2):1-9
22. **G.J. Chakrapani** (2005) Factors controlling variations in river sediment loads. *Current Science* 88 (4):569-575 *Ind. Acad. Sci. Publ.*
21. Gupta,H. and **G.J. Chakrapani** (Student Supervisor) (2004) Variations in daily sediment loads of Narmada river.In:Water Quality-Monitoring, Modeling and Prediction(NIH Publ.) 31-39 pp
20. Dhingra,D. and **G.J. Chakrapani** (Student Supervisor) (2004) Estimation of silicate weathering in Upper Ganga river in Himalayas, India. *Himalayan Geology* 25(2):139-144. *WIHG Publ.*
19. **G.J. Chakrapani** (2003) Linking of major rivers of India–Bane or Boon? *Correspondence Jour.Geol.Soc.India* Vol. 61.*Geol.Soc. Ind. Publ.*
18. **G.J. Chakrapani** (2002) Chemical studies of water in Kumaun Himalayan lakes. In: *Aquatic Ecosystems-Conservation,Restoration and Management(Capital Publ.)*,147-53 pp
17. **G.J. Chakrapani**, J. Gaillardet, B. Dupre and C.J. Allegre (Research Collaborator)(2002) Osmium isotopic composition in Ganga river sediments *Current Science* 83(10):1253-1255. *Ind. Acad.Sci. Publ.*
16. **G.J. Chakrapani** (2002) Water and sediment geochemistry of major Kumaun Himalayan lakes *Environmental Geology* 43:99-107, Springer-Verlag Publ.
15. Dessert, C., B.Dupre,L.M.Francois, J.Schott,J.Gaillardet, **G.J. Chakrapani** and S. Bajpai (Research Collaborator) (2001) Erosion of Deccan Traps determined by river geochemistry : Impact on the global climate and Sr⁸⁷/Sr⁸⁶ ratio of seawater, *Earth and Planetary Science Letters* 188 : 459-474, Elsevier Publ.
14. Gibbs,R.J., P.K.Jha and **G.J. Chakrapani** (Research Collaborator) (2000) Clay mineralogy of the Hudson river estuary. *Northeastern Geology and Environmental Sciences* 22(1):26-30. Blackwell Publ.
13. **G.J. Chakrapani** and B.C.Raymahasay (Research Collaborator) (1999) Metal pollution due to mining activities. In: *Biogeochemistry of rivers in tropical south and south-east Asia, SCOPE Publ., Hamburg*), 255-260 pp.
12. Sharma,M., G.J.Wasserburg, A.W.Hoffmann and **G.J. Chakrapani** (Research Collaborator) (1999) Himalayan uplift and osmium isotopes in oceans and rivers. *Geochimica et Cosmochimica Acta* 63 (23/24) 4005-4012, Pergamon Publ.

11. **G.J. Chakrapani** and A.K.Soni (1998) Pollution due to exploitation of mineral resources. In: Environmental Biogeochemistry (SCOPE Publ. Hamburg), 423-432 pp
10. Sharma,M., G.J.Wasserburg, A.W.Hofmann and **G.J. Chakrapani** (Research Collaborator) (1998) The osmium isotopic composition of the suspended and dissolved load in the Ganges : Implications for the evolution of the seawater Os EOS 79, F519, American Geophysical Union Publ.
9. Ahmad,T., P.P.Khanna, **G.J. Chakrapani** and S.Balakrishnan (Research Collaborator) (1998) Geochemical characteristics of water and sediment of the Indus river, Trans-Himalaya, India: Constraints on weathering and erosion. Journal of Asian Earth Sciences 16(2-3) 333-346, Elsevier Sci. Publ.
8. **G.J. Chakrapani** and V.Subramanian (Student Research) (1996) Fractionation of heavy metals and phosphorus in suspended sediments of the Yamuna River, India. Environmental Monitoring and Assessment 43: 117-124, Kluwer-Academic Publ.
7. **G.J. Chakrapani**, V.Subramanian, R.J.Gibbs and P.K.Jha (Research Collaborator) (1995) Size characteristics and mineralogy of suspended sediments of the Ganges River, India. Environmental Geology 25: 192-196, Springer-Verlag Publ.
6. Gibbs,R.J. P.K.Jha and **G.J. Chakrapani** (Research Collaborator) (1994) Sediment particle size in the Hudson estuary. Sedimentology 41: 1063-1068, Blackwell Publ.
5. **G.J. Chakrapani** and V.Subramanian (Student Research) (1994) Grain size distribution and mineralogy of suspended sediments of Mahanadi River. Geological Society of India 44: 541-546. Geol. Soc.Ind. Publ.
4. **G.J. Chakrapani** and V.Subramanian (Student Research) (1993) Heavy metals distribution and fractionation in sediments of the Mahanadi river basin, India. Environmental Geology 22:80-87, Springer-Verlag Publ.
3. **G.J. Chakrapani** and V.Subramanian (Student Research) (1993) Rates of erosion and sedimentation in the Mahanadi river basin, India. Journal of Hydrology 149: 39-48, Elsevier Sci.Publ.
2. **G.J. Chakrapani** and V.Subramanian (Student Research) (1990) Factors controlling sediment discharge in the Mahanadi river basin, India. Journal of Hydrology 117: 169-185, Elsevier Sci. Publ.
1. **G.J. Chakrapani** and V.Subramanian (Student Research) (1990) Preliminary studies on the geochemistry of the Mahanadi river basin, India. Chemical Geology 81:241-253, Elsevier Sci.Publ.

Ph.D. THESIS SUPERVISED

1. **Environmental Geochemistry of Narmada River Basin**
(Harish Gupta, 2006)
2. **Paleomonsoon in NW India: An Environmental Magnetic Approach**
(Narendra Kumar Meena, 2007)
3. **Neuro-fuzzy model application to sediment discharge in Narmada River**
(Ms. Nibedita Bisoyi, 2007)
4. **Temporal and spatial variations on water chemistry of Alaknanda and Bhagirathi rivers of Garhwal Himalaya**
(Ravi Kumar Saini, 2007)
5. **Determination of dissolution rates of rocks/minerals by laboratory experiments**
(Sri Krishan Yadav, 2007)
6. **Characterisation of organic matter in sediments of Kumaun Himalayan lakes**
(Ms. Preetam Choudhary, 2008)
7. **Nutrients and heavy metals in Kumaun Himalayan lakes**
(P. Purushothaman, 2009)
8. **Sediment Geochemistry of Kallai River, Kerala**
(Ms. K.J. Resmy, 2013)
9. **Sediment flow modeling in Bhagirathi River using artificial neural networks**
(Nandita Singh, 2015)
10. **Impact of urbanization on groundwater of Lucknow area**
(Anjali Singh, 2015)
11. **Scour around spur dikes and bridge piers founded in cohesive sediment mixtures**
(Ajay Singh Lodhi, 2015)
12. **Characterization of sediments of the Alaknanda River, Garhwal Himalayas, India**
(Ms. Sugandha Panwar, 2016)
13. **Sediment flow patterns and water quality in Ramganga River, Ganga Basin, India**
(Mohd. Yawar Ali Khan, 2016)

TALKS IN CONFERENCES / INVITED LECTURES

1. Application of Remote sensing techniques in Hydrology, NIH Roorkee, 1988
2. Mathematical modeling in water quality, NIH-UNESCO, New Delhi 1989
3. Metals in environment, Orlando, USA 1990
4. Mercury in environment, Gavle, Sweden 1990
5. Invited talk in Centre for Ecological Sciences, IISc, Bangalore 1990
6. Environmental Pollution due to Thermal Power Plants, NTPC, New Delhi 1991
7. Accelerator Mass Spectrometer: Applications to Earth Sciences, Institute of Physics, Bhubaneswar, 1998
8. International Seminar on Applied Hydrogeochemistry, Annamalai University, 1998
9. American Geophysical Union, San Francisco, 1998
10. Recent Trends in Environmental Biogeochemistry, JNU New Delhi, 1998
11. Geological Society of France, Paris 1999
12. Hydrological and Geochemical Processes in Large -Scale River Basins, Manaus, Brazil, 1999
13. American Geophysical Union, San Francisco, USA 2000
14. International Workshop on Geoenvironmental Hazards, New Delhi 2000
15. Eleventh Annual V.M.Goldschmidt Conference 2001, Boston USA
16. International workshop on Ecohydrology, UNESCO-JNU, New Delhi Nov 26-29,2001
17. National workshop on Water Quality, New Delhi Feb 1-2, 2002
18. Earth Science Research, Annual General Meeting of Geological Society of India, Chandigarh October 23-25, 2002
19. Symposium on Conservation, Restoration and Management of Aquatic Ecosystems, Indian Institute of Science, Bangalore December 9-13, 2002
20. International Limnogeological Congress ILIC3, University of Arizona, Tucson, USA March 29- April 2, 2003
21. International Conference on Coastal and Freshwater Issues, Institute of Ocean Management, Anna University Dec. 8-10, 2003
22. International Conference on River Bank Filtration, Department of Civil Engineering, Indian Institute of Technology, Roorkee March 1-2, 2004
23. National Conference on River Links and Diversions, Jawaharlal Nehru University, New Delhi 22nd-23rd March 2004
24. National Conference on Water Quality-Monitoring, Modeling and Prediction, National Institute of Hydrology, Roorkee 22nd-23rd November 2004
25. International Conference on Conservation, Restoration and Management of lakes and Coastal Wetlands. Bhubaneswar. 9th -13th December 2004
26. International Conference on Hydrological Perspectives for Sustainable Development, Department of Hydrology, IIT Roorkee 23rd-25th February 2005
27. EU-India workshop on River Bank Filtration, Civil Engineering Department , IIT Roorkee, April 4,2005

28. Invited Lecture in IIRS Dehra Dun on 1st September 2005
29. Invited Lecture in Civil Engineering Department, IIT Kanpur on 19th September 2005
30. International symposium on “Applied geochemistry in the evaluation and management of onshore and offshore geo-resources” Osmania University, Hyderabad 28-30th September 2005
31. Indian Association of Sedimentologists National Conference on Sedimentary Basins of the Himalaya-Challenges for the Future. Wadia Institute of Himalayan Geology, Dehra Dun, 21-23, December 2005
32. Indo-US Workshop on Green Chemistry, University of Delhi, Delhi 7th-9th January 2006
33. 16th V.M.Goldschmidt Conference, August 27, 2006 1st September 2006, Melbourne, Australia
34. Brainstorming session on geochemical precursors to earthquake, Saha Institute of Nuclear Physics, Kolkata September 11-13, 2006
35. 1st Uttaranchal State Science Congress, Dehra Dun (Chaired session on ‘Earth Sciences’), 10-11, November 2006
36. 12th World Lake Conference, Jaipur, India 28th October-2nd November 2007
37. Annual Geological Society of America Meeting, Denver, USA., 2007
38. Workshop on Tsunami in South China Sea, 5-7 December 2007, Academia Sinica, Taipei
39. Invited Lecture at Institute of Earth Sciences, Academia Sinica, Taipei (Taiwan) on 14th December 2007
40. Invited Lecture at the Centre of Earth Sciences, Indian Institute of Science, Bangalore on 10th April 2008
41. International Conference on Mountain Building and Climate-Tectonic Interaction, WIHG, Dehra Dun, 23-25 October 2008
42. National conference on ‘Hydropower Projects in Uttarakhand: Opportunities, Challenges and Conflict-Resolutions’, HNB Garhwal University, Srinagar, February 14-15, 2009, (Key Speaker)
43. National workshop-cum conference on ‘Environment, Energy, Occupational Health & Safety: Vital Necessity in Corporate World’, MOEF & SEARCH Foundation, WWF India Auditorium, New Delhi, February 27-28, 2009 (Guest of Honor & Key Speaker)
44. National workshop on ‘Ground Water and Water Quality in Uttarakhand’ CGWB, Dehra Dun, 19-20 March 2009 (Key Note Speaker)
45. Invited Speaker, Department of Applied Geology, HS Gour Sagar University, 26th Oct.2009
46. International Conference on ‘Human Impacts on Sub-Surface Environments’, Academia Sinica, Taipei, Taiwan, November 16-20, 2009 (Invited Speaker)
47. International Workshop on ‘Anthropogenic Impacts on Water Resources and Soils: An Indo-French Perspective’, Indian Institute of Science, Bangalore, 23-25 November 2009 (Invited Speaker)
48. Invited Speaker, TERI University, New Delhi-Indira Gandhi National Forest Academy, Dehra Dun, 17th February 2010
49. International Conference on ‘Evolution of Asian River Systems Linking to Cenozoic Tectonics, Climate and Global Geochemical Cycles’ Nanjing University, China, 8-9th May 2010 (Chaired a session on ‘Drainage Development: Tectonic and Climatic Constraints)

50. Invited Talks, State Key Laboratory of Marine Geology, Tongji University, China (3rd July 2010, 5th July 2010)
51. Invited Talk, IGCP-581, Geological Survey of India (2nd November 2010)
52. National Seminar on “Drilling Technology”, Institute of Drilling Technology, ONGC, Dehra Dun, 25-26 April, 2011
53. Key Speaker, State Action Plan on Climate Change (SAPCC-Uttarakhand), Dehra Dun (WWF), 7th May 2011
54. Guest of Honour, World Environment Day, 2011, CSIR-Central Building Research Institute, Roorkee (5th June 2011)
55. Dialogue initiation meet on “Mitigation and remedy of ground water arsenic menace in India”, 24th June 2011 (NIH-CGWB), New Delhi
56. Invited Talk at State Key Laboratory of Marine Geology, Tongji University, Shanghai, China, 6th July 2011
57. Invited Talk at Key Laboratory of Marine Geology, Ocean University of China, Qingdao, China, 8th July 2011
58. Invited Talk at School of Environment and Natural Resources Management, Doon University, Dehra Dun, 27th July 2011
59. Invited talk at Delta Studies Institute, Visakhapatnam, 23rd September 2011
60. Invited talk at Geology Department, Andhra University, 24th September 2011
61. International Conference on Asian Marine Geology-7, NIO Goa, 10-14 October 2011
62. Invited talk at the workshop on “Hydrogeochemical modeling assessment and management of urban and coastal groundwater” at School of Environmental Sciences, Jawaharlal Nehru University, New Delhi, 19th October 2011
63. Invited talk at the national conference on “Recent advances and future challenges in Geochemistry and Geophysics” Banaras Hindu University, Varanasi 22-24 February 2012
64. Invited talk (INSPIRE, DST), Shobhit University, Meerut, 18th June 2012
65. Guest Lectures, State Key Laboratory of Marine Geology, Tongji University, Shanghai (China) 6-14 November, 2012
66. Invited Talk, Indo-Norwegian Conference on Enhanced Oil Recovery and CO₂ sequestration, (NGRI Hyderabad), 26-28 November 2012
67. Invited Talk, Workshop on Application of GIS to Groundwater modeling and management, National Institute of Hydrology, Roorkee (13th February 2014)
68. Invited Talk, Workshop on Water Resources Conservation: Village Ponds and Lakes, Centre for Science & Environment, New Delhi (25th February 2014)
69. Invited Speaker, National Workshop on “Continental crust and cover sequences in the evolution of the Indian sub-continent” at the National Centre for Earth Sciences-Thiruvananthapuram (21st January 2015)
70. Resource person and invited talk at Kurukshetra University –Earth’s atmosphere and global climate change, 23 December 2015
71. Invited Talk at the Indo-UK workshop on water quality and source protection, Indian Institute of Science, Bengaluru, 29th March 2016 to 1st April 2016

COMMENDATIONS

- ❖ Certificate of Merit 1990, Smithsonian Institution, USA
- ❖ Letter of appreciation (star performance) from Director, IIT Roorkee for excellence in academic and research performance 2003-04, 2005-06
- ❖ Letter of appreciation for a research paper, 2005- from Amy Young, Program Coordinator "Planet Earth" BBC London
- ❖ National Geosciences Award (Environmental Geosciences), 2005, Ministry of Mines, Government of India
- ❖ Fellow, National Academy of Sciences, India (FNASc, 2012)

M.TECH. DISSERTATIONS

1. Groundwater quality in parts of Muzaffarnagar District, U.P. with special reference to chemical evolution (Ruchindra Singh, 1996)
2. Geochemical and Pb-210 studies on Nainital Lake sediments, Kumaun Himalaya (Anurag Pattnaik, 1997)
3. Effect of weathering on Luminescence dating (Praveen Akhouri, 1998)
4. Assessment of soil erosion from Pun Pun Sub basin (R.Saravanan, 2001)
5. Impact of urban pollution in the Adyar river and the adjacent groundwater in Chennai city (G.V.Suresh, 2001)
6. Chemical weathering studies in upstream Ganga river basin (Deepak Dhingra, 2002)
7. Chemical composition and mineralogy of Nainital lake sediments (Ashis Patra, 2002)
8. U-Th series nuclides in sediments and water column of northern Indian Ocean (A. Deymunsh, 2003)
9. Ground water quality studies in Saharanpur (Ravi K. Saini, 2003)
10. Geoenvironmental studies in Raniganj Coal Fields, West Bengal (Supriyo Kumar Das, 2003)
11. Monitoring of heavy metal loading in Dehi soil: Environmental magnetism and geochemical approach (Sabyasachi Maiti, 2004)
12. Application of neural network to river chemical weathering with special reference to Ganga River at Rishikesh (Ranjit Kumar Subudhi, 2004)
13. Rock/mineral Dissolution Rate Experiments (Manoj Kumar Gupta, 2006)
14. Phosphorus Fractionation in Nainital Lake Sediments (Anand Soren, 2006)
15. Dissolved heavy metals in Kumaon Himalayan lakes (Suyash Misra, 2008)
16. Phosphorus in sediments of Kumaon Himalayan Lakes (Anindya Das, 2008)
17. Role of tectonics and climate on sedimentation in parts of Mohand area, Dehradun sub-basin (Manas Mishra, 2012)
18. Spatio-temporal variation in the hydrogeochemistry of Tawa River, Central India (Ashwini Mehto, 2012)

19. Water and soil quality assessment of Talcher coalfield areas
(Ms. Pranati Mohanty, 2013)
20. Grain size distribution of suspended sediments in Alaknandariver
(Ms. K.J.Archana, 2013)
21. Organic matter and Sediment size distribution in Siwaliks, Mohnad Area (Ajay Mishra, 2014)
22. Water Quality in Coal Mines Area in Jharkhnad (Ravikant, 2014)
23. Lakes eutrophication in Bhopal (Mayank Malviya, 2014)
24. Dissolved organic carbon, inorganic carbon and silica transport in Alaknanda River
(Dhruv Gaur, 2015)
25. Engineering properties of Ramganga river sediments (Shaumik Daityari, 2015)
26. Water and sediment characterization in Kallada River (Stephy Thomas, 2015)
27. Carbon dioxide storage potential modeling example from DVP (Yash Gupta, 2016)
28. CO₂ sequestration potential of basalts compared to sandstone - using Deccan Volcanic Province (Disha Pandey, 2017)
29. Noble gas isotope cosmochemistry of deep-sea cosmic spherules (Supratim Dey, 2017)

M.SC. DISSERTATIONS

1. Grain size and mineral composition of Indus river sediments
(Rudradeb Bhattacharya, 2002)
2. Global carbon dioxide consumption by silicate weathering (Prasun Biswas, 2003)
3. Dissolved load characteristics of the Upper Ganga River
(Ms. Swagata Chatterjee, 2004)
4. Water chemistry of Khajjiarlake in Himachal Pradesh (Saraswat Swain, 2005)
5. Water Quality Studies in Kanpur City (Vinay Babu, 2006)
6. Coupling Hydrogeochemistry and Seismic Activity at a Location in Assam, India
(Abdul Wahid, 2006)
7. Water Quality Studies in Roorkee (Viren Fernandes, 2006)
8. Estimation of Sediment Load at Lambagad, Alaknanda River
(Diptaroop Chakraborty, 2007)
9. Geochemistry of hot spring waters (Prashant Dubey, 2008)
10. Laboratory experiments on river geonanomaterials (Ms. M.Viswanathan, 2009)
11. Sediment loads in selected locations on the Alaknanda and Bhagirathi rivers (Ashutosh Mishra, 2009)
12. Variation in sediment load and mineralogy in downstream of Mahanadi River
(A.D.Mohanty, 2010)
13. Sediment pollution indices in Ganga River (Hrishikesh Kumar, 2011)

14. Water quality in Ganga River (Saurabh Jayaswal, 2011)
15. Estimation of chemical weathering of source rock of Narmada River (Subhra Mullick, 2012)
16. Variation in total organic matter in bed sediments of Tawa River (Bishnu Prasad Mishra, 2012)
17. Size characterization of bed sediments of Alaknanda River (Ms. Puspita Tripathy, 2013)
18. Estimation of chemical weathering of source rocks in Alaknanda River basin (Pratap Tapan Sahoo)
19. Rock-alkali-acid reactions in some Himalayan rocks (Rahul Karki, 2014)
20. Chemical weathering provenance in Mahanadi River (Aumprakash Sahoo, 2015)

Post-Doc (CSIR-RA)

1. Dr. J. Sahoo (1997-99)

PROJECTS

1. Water and sediment pollution indices in Kumaun Himalayan Lakes (AICTE, 2001)
2. Modernization of Laboratory (MHRD, 2003)
3. Environmental pollution in Ganga River: A study of trace element speciation (MHRD, 2006)
4. Dissolution rates of lithologies from Alaknanda-Bhagirathi river basins: Implications for chemical weathering processes (DST, 2007)
5. Sedimentary record of human-induced environmental changes and affects in the Kumaun Himalayan Lakes, India (VR-SIDA, Sweden, 2008)
6. Assessment of toxic pollutants in Kumaun Himalayan Lakes: Past and present pollution indices from studies of sediment cores (MoEnF, 2008)
7. Hydrogeochemistry of Surface and Ground Waters, Erosion Rates and Carbon-Nitrogen Fluxes in Riverine Environment of Sub-Himalayan and Lesser Himalayan Catchments (ISRO-GBP, in collaboration with IIRS Dehra Dun, 2009)
8. Arsenic contents in deep and shallow aquifer materials in UP (UNICEF-UPJNL, 2009)
9. Documentation on Bore Blasting Technology (UNICEF, In Progress)
10. Dissolution Rates of Deccan Basalts and other Lithologies in the Narmada River Basin (DST, 2010, In Progress)
11. Geochemical evolution of ground water in a limestone-granite terrain underground research laboratory site, Gulbarga District, Karnataka (BRNS, 2012, In Progress)
12. Intergenerational Equity of Iron Ore Mines in Goa (SESA, Goa, 2013)
13. Analysis of Bowli-Nandprayag Hydropower Project Materials (UJVNL, 2014)

14. Material tests of BNP-HEP, UJVNL (UJVNL, 2015)
15. Water and sediment characterization of Kallai River, Kerala: Geochemical and Sedimentological Approach (MOES, 2015)

JOURNAL PAPER REVIEWER

(Total manuscripts reviewed since 2006=120)

Geochimica et Cosmochimica Acta (Pergamon), American Geophysical Union- G cubed, Journal of Hydrology (Elsevier), Journal of Geochemical Exploration (Elsevier), Journal of Asian Earth Sciences (Elsevier), Journal of Earth Systems Sciences (Springer), Industrial & Engineering Chemistry Research (American Chemical Society), Environmental Monitoring and Assessment (Springer), Hydrological Sciences Journal (IAHS Publ.), Journal of Water Resource and Protection, Geological Society of India, Current Science Indian Water Resources Society, Hydrology Journal, Journal of Geochemistry, Gondwana Geological Magazine, PNASI, Himalayan Geology, African Journal of Biotechnology, International Journal of Environmental Analytical Chemistry, Indian Journal of Geo-Marine Sciences, Geoscience Frontiers, Estuarine and Coastal Shelf Science, Geology, Chemical Geology (Elsevier)

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PROJECT PROPOSALS REVIEWER

Department of Science and Technology (DST), Ministry of Environment & Forests (MoEF), CEFIPRA (France), NCAOR (Goa), Ministry of Earth Sciences (MoES), Several Industries