GOVIND JOSEPH CHAKRAPANI



Fellow of National Academy of Sciences of India (FNASc), 2012 National Geoscience Award, Government of India, 2005

Professor, Department of Earth Sciences, IIT Roorkee (On Lien) Vice Chancellor, Berhampur University, Odisha Vice Chancellor, Kalahandi University, Odisha

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PERSONAL INFORMATION

Born: 18th May 1963 Citizenship: Indian

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

RESEARCH

About myself: I completed M.Sc. (Applied Geology) from IITB, Mumbai and M.Phil. and Ph.D. from the School of Environmental Sciences, JNU, while securing high First Division in all my academic degrees. I was a research intern at Smithsonian Environmental Research Centre and Research Scientist (Post-Doc) at University of Delaware, USA. I joined IIT Roorkee (UoR) as Assistant Professor in 1996 and have been designated as Professor since 2008. I teach Geochemistry, Global Environment, Global Climate, Sedimentology, Thermodynamics and Mineral Equilibria, Hydrogeology etc. I have developed many subjects of relevance from time to time. I have supervised 14 Ph.D. students, 49 Master's Dissertations, published 80+ Papers with (google scholar) *citations* of 2400+ and *h-index* of 29. I am involved as advisor/expert with several Committees of the Government of India, Selection Committees, in Institute Administration, Reviewer of Theses and Publications in Journals etc. Presently, I am working as Vice-Chancellor of Berhampur University, Odisha and Vice Chancellor, Kalahandi University (Odisha0). I was the Dean at Nalanda University (MEA, GoI), Organizing Chairman of GATE 2017, Chairman, GATE (2015, 2016,2017) and Chairman of JAM (2015, 2016, 2017) and Vice-Chairman of GATE and JAM (2013, 2014) and was Associate Dean (Students Welfare) and led

many student, and academic related activities. I was Chairman of Environmental Assessment Committee of EAC member etc. of Government of India. I have been a visiting Professor in many universities in India and abroad. I successfully completed MHRD sponsored Leadership for Academicians Program (LEAP) at IITB and NTU Singapore.

I led a research group on studies related to environmental processes in rivers, organic geochemistry in lakes and urban hydrogeology. My recent studies focused on silicate weathering mechanisms in the Ganga River, prediction of sediment loads in Himalayan rivers using neural networks and urban hydrogeology. We applied neural network techniques in geology which is a new concept in transport of river borne materials in Indian river systems and has implications in prediction of river sediment loads effectively. Our studies on Himalayan rivers established the significant role of Himalayan catchment and seasonal variations for large scale changes in chemical weathering rates. The flux of water and sediment transport by the rivers since 1975, were revised by us and the rates of physical and chemical weathering were estimated. Through numerous field and laboratory simulated studies, we demonstrated the effective dissolution/weathering of rocks by organic acids, temperature, surface dislocations, and showed that soil microbial activities play a major role in contributing alkalinity to Himalayan rivers. In a first ever study in India, laboratory experiments were carried out to understand the dissolution rates of rocks/minerals in simulated conditions, which assume significance for the release of trace elements from rocks/minerals, triggering of landslides, suitable repositories for nuclear waste disposal etc. In a significant study, impact of Deccan Traps erosion on the global climate was estimated and validated. Our studies on the biogeochemistry and environment on Himalayan Lakes by organo-specific biomarkers, isotopes of carbon, sulfur, nitrogen, strontium and trace elements, the paleoenvironment and productivity were interpreted. Our studies on the daily and decadal variations and factors controlling dissolved and sediment flux by the Narmada river and the Mahanadi river showed the precise water discharge and sediment flux to the Arabian Sea and Bay of Bengal respectively and demonstrated efficient trapping of sediments by dams and co-precipitation of dissolved nutrients with calcium carbonate in reservoirs. In recognition of my academic contributions, I was rated as a Star Performer at my Institute during 2003-04 and 2005-06 and was felicitated in 2017 for bringing laurels to IIT Roorkee. I was awarded the National Geosciences (Mineral) Award by the Government of India in 2005 and was elected as a Fellow of National Academy of Sciences in India (FNASc) in 2012.

GOVIND CHAKRAPANI- CURRICULUM VITAE

RESEARCH AREAS

Low-temperature Geochemistry, Environment of Rivers & Lakes, Urban Hydrogeology, Rock-Water-Air Interaction, Environmental Impact Assessment & Management

ACADEMIC WORK

Presently working as Vice Chancellor, Berhampur University, Odisha (since 16th October 2019); Vice Chancellor, Kalahandi University, Odisha (since 23rd June 2020)

2008 - TILL DATE INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

Professor (HAG since 1.1. 2017)

2018 Senior Director, National Testing Agency, Government of India

(did not take up the job)

2017-18 (On Lien) Nalanda University (Ministry of External Affairs), Rajgir, Bihar

Dean, School of Ecology & Environment Studies

Officiating Dean, School of Buddhist Studies

Director, Unnat Bharat Abhiyan (NU)

Finance Officer-in-Charge

2003 – 2008 Associate Professor, IIT Roorkee

1996 – 2003 Assistant Professor, IIT Roorkee

Research Publications: 80+ (Citations: 2400+, h-index: 29)

Theses Supervision: Ph.D: 14 (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)

Singapore, 2019 (Nanyang Technological University)

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

Research Communication

Hydrological Processes

Environmental Impact Assessment and Management

Disaster Management

Global Environment

Coastal and Marine Environment

Courses Developed :

Global Climate, Environmental Geochemistry,

Global Biogeochemical Cycles, Applied Geochemistry, Global Environment, Hydrogeology, Contaminant Hydrogeology, Coastal and Marine Ecosystems, Research Communication, Environmental Impact Assessment and Management, Economics of Global Climate Change

> Reviewer:

Journals (Elsevier, Springer, ACS, IAHS, GSI, CS, HG, Eos, G-3, AGU etc. Reviewed since 2006 = 130),

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 DELHIAND
	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, 7.2/9.0)
1985	INDIAN INSTITUTE OF TECHNOLOGY BOMBAY, MUMBAI M.Sc. Applied Geology (1st Division, 7.74/10.0)
1983	BERHAMPUR UNIVERSITY, BERHAMPUR, INDIA B.Sc. Geology Honors (1st Division, 71%)
1981	BERHAMPUR UNIVERSITY, BERHAMPUR, INDIA I.Sc. Maths, Physics, Chemistry, Geology (1st Division, 77.4%)
1979	ORISSA BOARD OF EDUCATION, INDIA H.S.C. (1st Division, 71%) National Merit Scholarship 1979-85

JOB AND ADMINISTRATION

2019- Till Date	Vice-Chancellor, Berhampur University, Odisha,	_
2020- Till Date	Vice-Chancellor, Kalahandi University, Odisha	
2008- Till Date	Professor, IIT Roorkee (HAG since 1.1.2017)	
2003-08	Associate Professor, IIT Roorkee	
1996-2003	Assistant Professor, IIT Roorkee	
2018	Visiting Professor, Kyoto University, Japan (did not avail)	

2017-18	Dean, School of Ecology and Environment Studies Nalanda University, Rajgir, Bihar (salary: tax free US Dollar 6000.00 per month)
2016-19	Member, Environmental Impact Assessment Committee
2010-19	River Valley and Hydropower Projects
	MOEFCC, Government of India
2018-21	Expert Member, ECRA& N-PDF, SERB, DST, Government of India
2016-19	Accreditation Member, NABET, Quality Council of India
2016-19	Organizing Chairman, GATE 2017 & Chairman, JAM 2017
2010-17	All IITs and IISc GATE 2017
2015-16	Chairman, GATE 2016 & JAM 2016
2 01 0 10	Indian Institute of Technology Roorkee
2014-15	Chairman, GATE 2015 & JAM 2015
2011 10	Indian Institute of Technology Roorkee
2007-10	Chairman, Uttarakhand State Environment Expert Appraisal
	Committee (SEAC), MOEFCC, Government of India
2008-11	Member, Uttarakhand State Environmental Impact Authority (SEIAA),
	MOEFCC, Government of India
2012-14	Chairman, Department of Earth Sciences Research Committee
	Department of Earth Sciences, IIT Roorkee
2013-14	Vice-Chairman, GATE and JAM 2014
	Indian Institute of Technology Roorkee
2012-13	Vice-Chairman, GATE and JAM 2013
2018-20	Chairman, Department Administrative Committee
	Indian Institute of Technology Roorkee
2018-19	Chairman, Draft Committee on Ethics Cell, IIT Roorkee
2001-17	In-Charge, Department of Earth Sciences Geochemistry Laboratory
2008-16	In-Charge, Department of Earth Sciences Museum
2013-17	In-Charge, Department of Earth Sciences Staff
2012-15	In-Charge, Departmentof Earth Sciences Buildings & Maintenance
2010-12	In-Charge, Department of Earth Sciences Sedimentology Lab
2006-09	In-Charge, Department of Earth Sciences Stores
2005-06	In-Charge, Department of Earth Sciences Time Table
2005-06	In-Charge, Department of Earth Sciences Examinations
2000-03	In-Charge, Department of Earth Sciences Library
2007-10	In-Charge, Himalayan Explorers' Club, IIT Roorkee
2013-15	Member, River Regulation Zone (MoEF), MOEFCC
2013-15	Member, IIT Roorkee Green Committee
2011-14	Member, Earth Sciences Department Finance Committee
2004-07	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 Member, IITR Library Committee, PhD Thesis Examiner-IIT Kharagpur, JNU New Delhi, Osmania University, University of Kerala, HNB Garhwal University, Anna University, University of Pune, Expert Member- UPSC, New Delhi, CMFRI, ISM Dhanbad, Department of Space (IISST, Thiruvananthapuram), Guru Gobind Singh Indraprastha University, New Delhi, WIHG Dehra Dun, NIT Rourkela, Thesis Examiner-University of Mauritius, IIT Guwahati

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 1-31st

Dec2007

(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 (GOOGLE SCHOLAR- CITATIONS:2400+, h-index:29)

- **80. Panwar**, S., Yang, S., Srivastava, P., Khan, M.Y.A., Sangode, S.J. and Chakrapani, G.J. 2020, Environmental magnetic characterization of the Alaknanda and Ramganga river sediments, Ganga basin, India. Catena 190 (104529). https://doi.org./10.1016/j.catena
- 79. Behera, A.K., **Chakrapani, G.J.**, Kumar, S. and Rai, N. Identification of sea water intrusion signatures through geochemical evolution of groundwater: a case study based on coastal region of the Mahanadi delta, Bay of Bengal. Natural Hazards, 97(3): 1209-1230, Springer Publ. 2019
- 78. Gupta, H., Bisoyi, N., Padhy, N.P., and **Chakrapani**, **G.** Prediction of daily sediment discharge using a back propagation neural network training algorithm: a case study of the Narmada River, India. International Journal of Sediment Research, 34(2): 125-135, Elsevier Publ. 2019
- 77. Khan, M.Y.A., Hassan, F., Tian, F. and **Chakrapani**, **G.** (Student Supervisor) Artificial neural network simulation for prediction of suspended sediment concentration in the River Ramganga, Ganges Basin, India, International Journal of Sediment Research, 34(2): 95-107, Elsevier Publ. 2019
- **76.** Panwar, S., Gaur, D. and **G.J.Chakrapani**(Student Supervisor) (2017) Total organic carbon transport by the Alaknanda River, Garhwal Himalayas, India. Arabian Jour. Geosci. DOI:10.1007/s12517-017-3003-3, Springer Publ.
- 75. Panwar, S., Agarwal, V. and **G.J.Chakrapani**(Student Supervisor) (2017) Morphometric and sediment source characterization of the Alaknanda River basin, Headwaters of River Ganga, India, Natural Hazards, DOI 10.1007/s11069-017-2838-y, Springer Publ.
- **74.** Panwar, S., Mishra, M, and **G.J.Chakrapani** (Student Supervisor) (2017) Orogeny as a controller of climate change and monsoon. In Development of Water Resources in India, Garg, V. et al. (Eds), Water Science and Technology Library 75, DOI 10.1007/978-319-55125-8_27
- 73. Khan, Y.A.M, Gani, K.M. and G.J. Chakrapani (Student Supervisor) (2017) Spatial and temporal variations of physicochemical and heavy metal pollution in Ramganga river-a tributary of River Ganges, India. Environmental Earth Sciences, 76:1-13, DOI: 10.1007/s12665-017-6547-3, Springer publ.
- **72.** Khan, Y.A.M, Khan, B and and **G.J.Chakrapani** (Student Supervisor) (2016) Assessment of spatial variations in water quality of Garrariver at Shahjahanpur, Gannga Basin, India, Arab. Jour. Geosci. 9(8):1-10, DOI: 10.1007/s12517-016-2551-2, Springer publ.
- 71. 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.
- 70. Panwar, S. and G.J.Chakrapani (Student Supervisor) (2016) Spatial and temporal variability in grain sizes of Alaknanda River, Chapter in Book "Geostatistical and geospatial approaches for the characterization of natural resources in the environment", 313-319 pp, Springer International 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/s12665-015-4785-9, Springer 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) (2016) Assessment of surface water quality and its spatial variation: A case study of Ramganga River, India, Arabian Journal of Geosciences, 9: 28. Springer Publ.DOI:10.1007/s12517-015-2134-7
- 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.), 61(11):2084-2095, 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, 74(7): 5475-5490, 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. GeochimicaetCosmochimicaActa 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**andR.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 BirkhauserVerlag 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 ManojK.Gupta (Student Supervisor) (2008) An experimental study on dissolution kinetics of calcite, dolomite, leucogranite and gneiss in buffer solutions at temperatures 25°C and 5°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**andR.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.ChakrapaniandA.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 rockwater interactions and its implications. Current Science 90(7):932-937,Ind.Acad.Sci.Publ.
- **31. G.J. Chakrapani**andJ.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-Forelend 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 Collabortaor) (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. GeochimicaetCosmochimicaActa 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. THESES (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. NibeditaBisoyi, 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 KrishanYadav, 2007)
- 6. Characterisation of organic matter in sediments of Kumaun Himalayan lakes (Ms. PreetamChoudhary, 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. SugandhaPanwar, 2016)
- 13. **Sediment flow patterns and water quality in Ramganga River, Ganga Basin, India** (Mohd. Yawar Ali Khan, 2016)
- 14. **Salt water intrusion modeling in Jagatsinghpur Coastal Aquifer System, Odisha** (Ajit Kumar Behera, 2019)

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.Goldschimdt 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.** 16thV.M.Goldschmidt Conference, August 27,20061st 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 GourSagar 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
- **72.** Chaired, Biodiversity Conservation and Ganga Rejuvenation WII, Patna on 5th October 2017
- 73. Organizing Committee Member, International Conference on Dhamma-Dharma, Nalanda University, Rajgir, 11-13 January 2018
- 74. Plenary Speaker and Chaired a Session at Promotion of Public Awareness on Water Development, Conservation and Management in Uttarakhand, HNB Garhwal University, Srinagar, 9th March 2018
- **75.** Chief Guest, Human Resources Development 2030, ISTD and IR&PM, Berhampur University, November 5, 2019

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 (AnuragPattnaik, 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 Adyarriver 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 (AshisPatra, 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)
- 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 (SabyasachiMaiti, 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 (SuyashMisra, 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 subbasin Manas Mishra, 2012)
- 18. Spatio-temporal variation in the hydrogeochemitsry of Tawa River, Central India (AshwiniMehto, 2012)
- 19. Water and soil quality assessment of Talcher coalfield areas (Ms. PranatiMohanty, 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 (MayankMalviya, 2014)
- **24.** Dissolved organic carbon, inorganic carbon and silica transport in Alaknanda River (Dhruv Gaur, 2015)
- 25. Engineering properties of Ramganga river sediments (ShaumikDaityari, 2015)
- **26.** Water and sediment characterization in Kallada River (Stephy Thomas, 2015)
- 27. Carbon dioxide sequestration potential of basalts compared to sandstone-using 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 (SupratimDey, 2017)

M.SC. DISSERTATIONS

- 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 (VinayBabu, 2006)
- 6. Coupling Hydrogeochemistry and Seismic Activity at a Location in Assam, India (Abdul Wahid, 2006)
- 7. Water Quality Studies in Roorkee (VirenFernandes, 2006)
- 8. Estimation of Sediment Load at Lambagad, Alaknanda River (DiptaroopChakraborty, 2007)
- 9. Geochemistry of hot spring waters (PrashantDubey, 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 (SaurabhJayaswal, 2011)
- **15.** Estimation of chemical weathering of source rock of Narmada River (SubhraMullick, 2012)
- **16.** Variation in total organic matter in bed sediments of Tawa River (Bishnu Prasad Mishra, 2012)
- Size characterization of bed sediments of Alaknanda River
 (Ms. PuspitaTripathy, 2013)
- **18.** Estimation of chemical weathering of source rocks in Alaknanda River basin (PratapTapanSahoo)
- 19. Rock-alkali-acid reactions in some Himalayan rocks (Rahul Karki, 2014)
- **20.** Chemical weathering provenance in Mahanadi River (AumprakashSahoo, 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 (MoEF, 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)
- **10.** Dissolution Rates of Deccan Basalts and other Lithologies in the Narmada River Basin (DST, 2010)
- 11. Solute chemistry and chemical weathering rates in Tawa River basin (DST, 2010)
- **12.** Geochemical evolution of ground water in a limestone-granite terrain underground research laboratory site, Gulbarga District, Karnataka (BRNS, 2012)
- 13. Intergenerational Equity of Iron Ore Mines in Goa (SESA, Goa, 2013)
- 14. Analysis of Bowli-Nandprayag Hydropower Project Materials (UJVNL, 2014)
- **15.** Material tests of BNP-HEP, UJVNL (UJVNL, 2015)
- **16.** Water and sediment characterization of Kallai River, Kerala: Geochemical and Sedimentological Approach (MoES, 2015)

JOURNAL PAPER REVIEWER

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