

CURRICULUM VITAE

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Academic Background

- Ph.D.** : Earth and Planetary Sciences with specialization in **Marine Chemistry, McGill University, Montreal, CANADA (1986-90)**
Thesis title: Geochemical and Mineralogical Characteristics of the Post-glacial Sediments of the St. Lawrence Lowlands
- Ph.D.** : **Environmental Sciences** with specialization in Environmental Geochemistry, **Jawaharlal Nehru University, New Delhi, INDIA (1983 –1986)**
Thesis title: Geochemistry of the Krishna River Basin
- M.Phil.** : Environmental Sciences with specialization in **Marine Chemistry, Jawaharlal Nehru University, New Delhi, INDIA (1981 - 83)**
Dissertation title: Some Geochemical Investigations of a Salt Farm near Madras
- M.Sc.** : Geology, University of Madras, Madras, INDIA (1979 - 81)
- B.Sc.** : Geology, Chemistry and Physics, University of Madras, Madras, INDIA (1976 - 79)

Professional Experience:

- **Professor**, Institute for Ocean Management, Anna University, Chennai, India (June 2001 – till date)
- **Technical Program Coordinator (TPC) Indo-UK** International Program on Integrated Coastal Zone Management and Training (ICZOMAT) funded by the Department of International Development (DFID), U.K. (Dec 2000 – till date)

- **Assistant Professor**, Institute for Ocean Management, Anna University, Chennai, India (June **1993** – June **2001**)
- **Visiting Professor**, Laboratoire des Mecanismes de Transfert en Géologie (LMTG), UMR, CNRS, Université Paul-Sebatier, Toulouse, FRANCE (October – November **1998**)
- **Visiting Scientist**, Biogeochemistry Department, Max Planck Institute for Chemistry, Mainz, GERMANY (September **1996** - March **1997**)
- **Visiting Scientist**, Department of Earth and Planetary Sciences, **Harvard University**, Cambridge, MA, U.S.A. (March - September **1994**)
- **Lecturer**, Centre for Water Resources and Ocean Management, Anna University, Madras, India (November **1991** – June 1993)
- **Visiting Faculty**, Centre for Water Resources, Anna University, Madras, India (Jan.1991 - Nov.1991)
- **Teaching and Research experience** at the Department of Earth and Planetary Sciences, McGill University, Montreal, Canada (**1986 -1990**)
- **United Nations Intern** in the 41st DPI Intern Program conducted by the United Nations Department of Public Information at United Nations Head quarters in New York (**1989**)
- **Consultant** to the Centre for St. Lawrence, Environment Canada, Montreal (**1990**)

Areas of Research Interest

- Urban River Pollution
- Biogeochemical Cycles
- Coastal Zone Management
- Global Climate Change
- Surface and Groundwater Quality and Management

Affiliations in Professional Organizations

- Association of Geoscientists for International Development
- International Association of Hydrogeologists
- American Geophysical Union
- Asian Fisheries Society
- International Geosphere Biosphere Programme
- International Association of Hydrological Sciences
- Geological Society of India

Supervision of Research Students:

- Ph.D. (Completed and awarded) : 5
- Ph.D. (To be submitted) : 2
- Ph.D. (Under guidance) : 4

Awards/Honours/Recognition

- Recipient of the *Japan Society for Promotion of Science Fellowship* to conduct advanced research in surface and groundwater pollution and modelling, at the Kyushu University, Fukouka, Japan (July 2002 to September 2002)
- *Member* of the Global International Water Assessment (GIWA) Task Team for the Bay of Bengal Sub-region since December 2001
- *Team Leader, River Basin Management Authority* for the Chennai (Madras) urban river pollution and cleaning up of waterways of Chennai City
- Recipient of the *Indo-UK Higher Education Link Programme* to conduct advanced research on Coastal Zone Management at the Universities of Newcastle and Bath, U.K. (June – July 2001)
- Recipient of the *French Government Scientific Exchange Fellowship* to conduct advanced research on River Geochemistry at the Université Paul-Sebatier, Toulouse, FRANCE (October – November 1998)
- Recipient of the *Indian National Science Academy's Scientific Exchange Award* to conduct Advanced Research in Global Climate Change Studies at Max-Planck Institute for Chemistry, Germany (Sep.1996 - March 1997)
- Recipient of the *Department of Science and Technology, Government of India, Better Opportunities for Young Scientists in Chosen Areas of Science and Technology (BOYSCAST) Young Scientist Award* to conduct Advanced Research in Global Climate Change Studies at Harvard University, U.S.A. (1994)
- Recipient of the International Foundation for Science (IFS), Sweden, *Young Scientist Project Award* (1993)
- Recipient of the *Department of Science and Technology, Government of India, Young Scientist Project Award* to conduct research on Flux Measurement of Greenhouse Gases from Mangrove Ecosystems (1993).
- *Canadian Commonwealth Scholarship: Association of Universities and Colleges of Canada, Government of Canada* (1986 - 90).

Research Projects (Completed)

- Coastal Mapping of Tamil Nadu. Joint Project by the Centre for Water Resources and Ocean Management and Institute of Remote Sensing, Anna University (Rupees 10 Lakhs). Funded by the Department of Ocean Development, Government of India and Co-ordinated by the Space Applications Centre, Ahmedabad (1991 - 93).
- Aquaculture Site Selection in Tamil Nadu Coast Using Geographical Information System and Remote Sensing (SEK 70,000 Swedish Crowns), International Foundation for Science, Stockholm, Sweden (1993 - 95).
- Flux Measurement of Greenhouse Gases from the Mangrove Ecosystems (Rupees 2.5 Lakhs). Funded by the Department of Science and Technology, Government of India (1993 - 1995).
- Methane Emission from the Polluted Wetlands of Madras City, India (Rs.50000/-) Funded by the Ministry of Environment and Forests, Government of India (1993 - 94).
- Sediment and Elemental Accumulation Rates along the Coastal Zone of Tamil Nadu (Rs. 10.00 Lakhs). Funded by Bhabha Atomic Research Centre, Department of Atomic Energy, Government of India, Bombay (1995 - 98).
- Sustainable Fresh Water Supply for Madras City, India Joint project by the Centre for Water Resources and Ocean Management, Anna University and Shri AMM Murugappa Chettiar Research Centre, Tharamani, Madras. (Rs.120,000/-) Funded by the UNICEF, New Delhi (1995 - 97).
- Drinking Water Quality Management with Concomitant Development of Agriculture and Prawn Culture in a Coastal Rural Habitat (Rs. 2.5 Lakhs). Funded by Rajiv Gandhi National Drinking Water Mission, Department of Rural Development, Ministry of Rural Areas and Employment, Government of India, New Delhi (1996 - 97).
- Biogeochemical cycle of Methane in Natural Wetlands. (Rs. 12.00 Lakhs). Funded by Indian Space Research Organization - Geosphere-Biosphere Programme (ISRO-GBP), Government of India, Bangalore (1998-2001).
- Methane Cycling in Tropical Mangrove Ecosystems of India. (DM. 90,000) Funded by Volkswagen Foundation, Hanover, Germany (1998-2000).
- Nature and flux of organic matter in Godavari river basin. (Rs. 6.00 Lakhs) Funded by LOICZ (Land-Ocean Interaction Programme), Department of Ocean Development, Government of India, New Delhi (1998-2001)
- Coastal Zone Management: Status and Trends of Pollutants in Coastal

Ecosystems of Tamil Nadu. Funded by the AICTE, Govt. of India, New Delhi (1998 – 2001).

- Environmental Impact Assessment of Urban, Industrial and Agricultural Pollution in the Tamiraparani River Basin. Funded by the Institute for Water Studies (World Bank), Government of Tamil Nadu (2000 – 2001).

Research Projects (Ongoing)

- No impact zone studies in critical habitats: Pulicat Lake Ecosystem. (Rs. 48.00 Lakhs) Funded by ICMAM (Integrated Coastal Marine Area Management Programme), Department of Ocean Development, Government of India, New Delhi (1999-2002).
- Water Quality Assessment and Characterization in Pondicherry Region. (Rs. 7.00 Lakhs). Funded by the Ministry of Water Resources, Government of India (2000 – 2002).
- Biogeochemistry of the Western Ghats Region between Goa and Mangalore using Remote Sensing and Other Modern Techniques. Funded by the Ministry of Environment and Forests, Government of India (2000 – 2003).
- Assessment of pollutant loadings in River Adyar and River Elbe and their environmental impacts. Funded by the Department of Science and Technology/ Deutscher Akademischer Austauschdienst (DST/ DAAD) Project Based Personnel Exchange Programme between Anna University, India and The University of Applied Sciences, Suderburg, Germany (April 2001 – March 2003)
- Nitrification, Denitrification and Nitrous Oxide in Indian Mangrove Ecosystems (£ 275,000). Funded by the Natural Environmental Research Council (NERC), U.K. This is an international collaboration with the University of Newcastle upon Tyne, U.K. (October 2002 – September 2005)
- Nutrient over-enrichment in coastal ecosystems: Cause and Effect (Rs. 25 lakhs). Funded by Indian Space Research Organization - Geosphere-Biosphere Programme (ISRO-GBP), Government of India, Bangalore (April 2001 – March 2003).
- Impacts of urban pollution on the Adyar River and the adjacent groundwaters of Chennai city (Rs. 8 lakhs). Funded by the Water Resources Consolidation Project (WRCP)/World Bank, Government of Tamil Nadu (June 2002 – December 2002).
- Indo-UK Link Project on Management of Coastal Environment in North Chennai, Tamil Nadu for livelihood security of coastal communities. Funded by the British Council, Chennai

Books Published

- **Coastal Urban Management** (2003) Ramesh R. and Ramachandran S. (Ed.) Published by Capital Publishing Company, New Delhi; *In Press*; 232 pp.
- **Recent Trends in Hydrogeochemistry** (2003) Ramanathan AL. and Ramesh R. (Ed.) Published by Capital Publishing Company, New Delhi; 300 pp.
- **A Trainer's Manual for Integrated Coastal Management Capacity Development** (2003) Le Tissier, M.D.A. et al., Published by Department of International Development (DFID), New Delhi, U.K. 183 pp.
- **Groundwater Management** (1998) Ramesh R. and Ramachandran. S. (Ed.) Published by Oxford IBH, New Delhi 170 pp.
- **Renewable Energy Technologies *Ocean Thermal Energy Conversion and Other Sustainable Energy Options*** (1997) Ramesh R., Udayakumar K and Anandakrishnan M. (Editors) Published by Narosa Publishing House, New Delhi 220 pp.
- **Chemical Methods for Environmental Analysis: Water and Sediment** (1996), Ramesh R. and Anbu M. Published by Macmillan India Limited, Madras. 161 pp
- **Sustainable Management of Coastal Ecosystems** (1993), Swaminathan M.S. and Ramesh R. (Editors), 230 pp.

List of Publications in Referred International/ National Journals

- Purvaja, R., Ramesh, R. and Frenzel, P. (2003) Plant-mediated methane emission from Indian mangroves. *Global Change Biology. In Press.*
- R. Ramesh, Purvaja R., Ramesh, S. and James, R.A. (2002) Historical pollution trends in coastal environments of India. *Environmental Monitoring and Assessment* 79 (2): 151-176
- Verma, A., Subramanian, V. and Ramesh, R. (2002) Methane emissions from a coastal lagoon: Vembanad Lake, West Coast, India. *Chemosphere* 47: 883-889
- Kannan, V. Rajan, M.P. Iyengar, M.A.R. and Ramesh, R (2002) Distribution of natural and anthropogenic radionuclides in soil and beach sand samples of Kalpakkam (India) using hyper pure germanium (HPGe) gamma ray spectrometry, *Applied Radiation and Isotopes*, 57: 109-119
- Ramesh. R (2002) Ecological and environmental degradation of Pulicat lake, India *Environmental Geochemistry (In Press)*
- Kannan, V. Iyengar, M.A.R. and Ramesh, R (2001) Dose estimates to the public from ²¹⁰Po ingestion via dietary sources at Kalpakkam (India) *Applied Radiation and Isotopes*, 54: 663-674

- Babu Rajendran, R., Tao, H., Miyazaki, A., Ramesh, R. and Ramachandran, S. Determination of butyl-, phenyl-, octyl- and tributylmonomethyltin compounds in a marine environment (Bay of Bengal, India) using gas chromatography-inductively coupled plasma mass spectrometry, *J. Environ. Monitoring*, 2001, 627-634
- Ramesh, R. (2001) Effects of land use change on groundwater quality in a coastal habitat of South India, *Hydrological Sciences*
- Purvaja R. and R. Ramesh (2001) Natural and anthropogenic methane emission from coastal wetlands of South India. *Environmental Management* 27, 547 – 557
- Purvaja R., and Ramesh, R (2000) Methane emission and its inventory from mangrove ecosystems of India. *Regional Environmental Change*, 1(2): 86-97
- Ramesh R, AL. Ramanathan, S. Ramesh, R. Purvaja and V. Subramanian (2000) Distribution of rare earth and heavy metals in the surficial sediments of the Himalayan river system. *Geochemical Journal* 34, 295 – 319
- Purvaja R. and Ramesh R. (2000) Natural and anthropogenic effects on phytoplankton primary productivity in mangroves. *Chemistry and Ecology*, 17: 41-58
- Bange, H.W., Rixen, T., Johansen, A.M., Seifert, R.L., Ramesh, R., Ittekkot, V., Hoffmann, M.R. and Andreae, M.O. (2000) A revised nitrogen budget for the Arabian Sea. *Global Biogeochemical Cycles* 14 (4) 1283 – 1297.
- Ramesh R., and Purvaja R. (2000) Nutrient fluxes from coastal ecosystems of Tamil Nadu, India to the Bay of Bengal. *Deep Sea Research* (In Press).
- Kannan, V., Iyengar, M.A.R. and Ramesh R. (2000) Dose estimates to public from ^{210}Po ingestion via dietary sources at Kalpakkam (India). *Applied Radiation Isotopes* (In Press).
- Babu Rajendran, R., Venugopalan, V.K. and Ramesh, R. (1999) Pesticide residues in air from coastal environment, South India. *Chemosphere*, 39 (10) 1699-1706.
- Verma, A., Subramanian, V. and Ramesh, R. (1999) Daytime variation in methane emission from two tropical urban wetlands in Chennai, Tamil Nadu, India. *Current Science*, 76: 1020-1022.
- Ramesh. R (1999) Groundwater quality management: Pollution perspectives. *Hydrological Sciences* Vol. 252: 31-42.
- Ramesh R., Ramanathan. Al., Arthur James, R, Subramanian, V., Jacobsen, S.B., and Holland , H.D. (1999) Rare earth elements and heavy metal distribution in estuarine sediments of east coast of India. *Hydrobiologia* Vol. 397: 89-99.
- Ramanathan AL., Subramanian, V., Ramesh, R., Chidambaram, S., and James, A. (1998) Environmental geochemistry of the Pichavaram mangrove ecosystem (tropical), southeast coast of India. *Environmental Geology* Vol. 37: pp 223-233.
- Bange H., Dahlke S., Ramesh R., Meyer-Reil L.-A., Rapsomanikis S., and Andreae M.O. (1998) Seasonal study of methane and nitrous oxide in the coastal waters of the southern Baltic Sea. *Estuarine, Coastal and Shelf Science* Vol. 47: pp 807-817.
- Bange H., Ramesh R., Rapsomanikis S., and Andreae M.O. (1998) Methane

in surface waters of the Arabian Sea. *J. Geophysical Research Letters* Vol. 25: pp. 3547-3550.

- Ramesh R., Purvaja G.R., Parashar D.C. and Mitra A. P. (1997) Anthropogenic forcing on methane efflux from polluted wetlands (Adyar River) of Madras city, India. *AMBIO A Journal of the Human Environment* Vol. 26: pp. 369-374.
- Ramesh R and B'd Anglejan (1997) Silica, Iron and Aluminum mobilization and transport from Post-glacial sediments of the St. Lawrence Lowlands - An experimental study. *Journal of Coastal Research*, Vol. 13. pp 1111 - 1118.
- Ramesh R and B'd Anglejan (1997) Concentration and nature of amorphous material in post-glacial sediments of the St. Lawrence Lowlands. *Neues Jahrbuch fuer Geologie und Palaeontologie* Vol. H.10: 605-629.
- Ramesh R and R. Rajkumar (1997) Coastal aquaculture site selection and planning in Tamil Nadu using Remote Sensing and GIS. *Asian-Pacific Remote Sensing and GIS Journal* Vol. 9 (1): 39-49.
- Chauhan P., Nayak S., Ramesh R., Krishnamoorthy R. and Ramachandran S. (1996) Remote sensing of suspended sediments along the Tamil Nadu coastal waters. *Journal of the Indian Society of Remote Sensing*. Vol. 24 (2) pp. 105-114.
- Ramesh R., Purvaja G.R. and Ika R.V. (1995) The problem of ground water pollution: A case study from Madras city, India. *Hydrological Sciences*, Vol. 230 pp. 147-157.
- Ramesh R., Purvaja G.R. and Subramanian V. (1995) Carbon and phosphorus transport by the major Indian rivers. *Journal of Biogeography*, Vol. 22, pp 2047-2053
- Ramesh R and d'Anglejan B. (1995) Mineralogy, chemistry and particle size interrelationships in some post-glacial sediment of St. Lawrence Lowlands. *Journal of Coastal Research*, Vol. 11 (2) pp. 221 - 233.
- Ramesh R., Shiv Kumar K., Eswaramoorthi S. and Purvaja G.R. (1995) Migration and contamination of major and minor elements in ground waters of Madras City, India. *Environmental Geology*, Vol. 25 (2) pp. 126 - 136.
- Ramesh R. and Subramanian V. (1993) Geochemical characteristics of the major tropical rivers of India. *Hydrological Sci.*, Vol. 21 pp. 157-164.
- Ramesh R. and Subramanian V. (1992) Textural characteristics of the Krishna river sediments, India. *GeoJournal*, Vol. 28 (4) pp. 449-455.
- Ramesh R., Subramanian V. and Van Grieken R. (1990) Heavy metal distribution in the sediments of the Krishna river basin (India). *Environmental Geology and Water Sciences*, Vol. 15 (3) pp. 207-216
- d'Anglejan B., Ramesh R. and Luccotte M. (1990) Metal-rich coatings on residual sand deposits in the St. Lawrence upper estuary. *The Science of the Total Environment*, Vol. 97/ 98 pp. 395-406.
- Ramesh R. (1989) Chemical composition of St. Lawrence and its controlling factors. *Hydrological Sciences*, Vol. 182, pp. 275-281.
- Ramesh R., Subramanian V., Van Grieken R. and Van't Dack, L., (1989) The elemental chemistry of sediments in the Krishna River basin, India. *Chemical Geology* Vol.74 (3/4) pp. 331-341.
- Ramesh R. and Subramanian V. (1988) Nature of dissolved transport of

- Krishna River basin, India. *Journal of Hydrology* Vol. 103, pp. 139-155.
- Ramesh R., Subramanian V. and Pillai K.C. (1988) Sediment and elemental accumulation rates in Krishna River basin, India. *The Science of the Total Environment*. Vol. 72, pp. 221-226.
 - Ramesh R. and Subramanian V. (1988) Temporal, spatial and size variation in the sediment transport in Krishna River basin, India. *Journal of Hydrology*. Vol. 98. pp. 53-65.
 - Subramanian V., Biksham G. and Ramesh R. (1987) Environmental Geology of peninsular river basins of India. *Journal of Geological Society of India*. Vol. 30. pp 393-401.
 - Ramesh R. and Subramanian V. (1987) Mineralogy, texture and chemical composition of brine sediments near Madras, East coast of India. *Indian Journal of Marine Sciences*. Vol. 16, pp. 90-93.
 - Ramesh R. and Subramanian V. (1986) Some aspects of erosion and sediment transport in the Krishna River basin. *Journal of Geological Society of India*. Memoir 5 pp 261-267.
 - Ramesh R. and Subramanian V. (1986) Mass transport in Krishna River basin, India. *Hydrological Sciences* Vol. 159, pp. 185-197.
 - Ramesh R. and Subramanian V. (1985) Water-mineral equilibria in solar salt farm near Madras, East Coast of India. *Indian Journal of Marine Sciences*, Vol. 14, pp. 79-84.

Chapters in Books

- Ramesh, R. (2003) Land use in coastal ecosystem and its implications on nutrient biogeochemistry. In: *Coastal Urban Management*. Ramesh R. and Ramachandran S. (Ed.) Published by Capital Publishing Company, New Delhi; 39-46.
- Purvaja, R. and Ramesh, R. (2003) Major Inorganic Constituents in Mangrove Ecosystems of South India. In: *Coastal Urban Management*. Ramesh R. and Ramachandran S. (Ed.) Published by Capital Publishing Company, New Delhi; 121-144.
- Purvaja, R. and Ramesh, R. (2003) Distribution of Trace Elements in the Mangrove Ecosystems of South India. In: *Coastal Urban Management*. Ramesh R. and Ramachandran S. (Ed.) Published by Capital Publishing Company, New Delhi; 145-174.
- Shalini, A. and Ramesh, R. (2003) Trace Metal Distribution in Sediments of Vellar Estuary In: *Coastal Urban Management*. Ramesh R. and Ramachandran S. (Ed.) Published by Capital Publishing Company, New Delhi; 175-188.
- Ramesh, R. (2003) Groundwater quality along the east coast of India. In: *Recent Trends in Hydrogeochemistry*. Ramanathan AL. and Ramesh R. (Ed.) Published by Capital Publishing Company, New Delhi; 139-146.
- Ramesh, R. (2003) Effect of land use change on groundwater quality in a coastal habitat of South India. Ramanathan AL. and Ramesh R. (Ed.) Published by Capital Publishing Company, New Delhi; 147-152.
- Ramesh, R., Purvaja, R. and Ramachandran, S. (2001) Global climate change and the coastal environment: An Overview. In: *Coastal Environment and*

Management. 291-308. Published by IOM, Anna University.

- Ramesh, R. and Purvaja, R. (1999) Methane and climate variability: Emission studies from coastal wetlands of India. In: Environmental Biogeochemistry, V. Ittekkot and V. Subramanian (ed.) SCOPE Sonderband, Hamburg, Germany, pp. 39 – 54.
- James, R.A., and Ramesh, R. (1999) Organochlorine pesticides in water and sediments of the Tamiraparani river basin, South India. In: Environmental Biogeochemistry V. Ittekkot and V. Subramanian (ed.) SCOPE Sonderband, Hamburg, Germany, pp. 211 – 218.
- Ramesh, R. and Ramachandran, S (1999) Coastal Zone Management: Issues and Initiatives in small South Asian Nations. In: Perspectives on Integrated Coastal Zone Management. W. Salomons, Turner, R.K., de Lacerda, L.D. and S. Ramachandran (eds.), Springer Germany. pp 235 – 254.
- Ramesh, R. (1999) Impacts of land-use change on groundwater quality. In: Groundwater Management, R. Ramesh and S. Ramachandran (ed.) Oxford & IBH Publ. pp 44-55.
- Purvaja, R and R. Ramesh (1993) Ecology, Conservation and Restoration of Coral Reef Ecosystems. In: sustainable Management of Coastal Ecosystems, M.S. Swaminathan and R. Ramesh (ed.), MSSRF, Chennai pp. 103-114

Presentation of Research Papers at International/National Conferences

- Ramesh, R. (2003) Impact of urbanization on freshwater resources. Special lecture presented at the National Workshop on “Freshwater” held at Jawaharlal Nehru University, New Delhi, India. (March 31 – April 2, 2003)
- Ramesh, R. (2002) Land use change in coastal ecosystems and its implication on nutrient biogeochemistry. Special Lecture presented at the International Workshop on “Integrated Coastal Zone Management: Impact of urbanization I coastal areas”. (10 – 12 October 2002)
- Ramesh R. (2001) Point and non-point sources of groundwater pollution along the east coast of India. Key Note Address presented at the Third International Conference on Future Groundwater Resources at Risk, held at Lisbon, Portugal (25 – 27 June 2001)
- Ramesh, R. and Purvaja, R. (2000) Nutrient fluxes from coastal ecosystems of Tamil Nadu, India to the Bay of Bengal. To be presented at the SCOR Symposium on Nutrient over-enrichment in the coastal waters: Global patterns of cause and effect, to be held at Washington DC (11 – 13 October, 2000).
- Purvaja R. and Ramesh, R. Mangrove Ecosystems and Climate Change. Presented at the Global Dialogue Session at the EXPO 2000, held at Hanover, Germany (July 2000).
- Ramesh R. Nutrient and rare earth element fluxes in coastal ecosystems of India. Special Address at the 5th International Conference on Environmental Geochemistry, held at Cape Town, South Africa (24 - 28 April 2000).
- Ramesh R. Assessment of methane source strength in coastal wetlands of India. Presented at the 2nd JGOFS Open Science Meeting, held at Bergen, Norway (13 - 17 April 2000).
- Ramesh, R. Nutrient budgets and modeling on coastal ecosystems of South

India. Presented at the LOICZ-UNEP Workshop on Nutrient budgets and modeling in South Asia, held at NIO, Goa (14 – 17 February 2000).

- Ramesh, R. Groundwater quality management: Pollution perspectives. Presented at the International Union of Geodesy and Geophysics (IUGG), held at Birmingham, U.K. (July 19-30, 1999).
- Ramesh, R. Methane emission from coastal ecosystems of India. Presented at the IGAC International Symposium on Atmospheric Chemistry, held at Seattle, Washington (19 – 26 August, 1998).
- Ramesh R. Impact of urbanization on groundwater quality: Example from Indian coastal cities. Key Note Address presented at the Second International Conference on Future Groundwater Resources at Risk, held at Changchun, China (14-16 July 1998).
- Ramesh R. and Purvaja G.R. Coastal wetland soils as probable N₂O source: Physico-chemical and biological nexus. Presented at the International Symposium on Atmospheric Chemistry and Future Global Environment, held at Nagoya, Japan (11-13 November 1997)
- Ramesh R., Purvaja G.R. and Ika R.V. The problem of groundwater pollution: A case study from Madras city, India. Presented at the International Union of Geodesy and Geophysics (IUGG), held at Boulder, Colorado, U.S.A. (July 2-14, 1995).
- Ramesh R. Dissolved and particulate material transport by Indian rivers into the world's oceans. Presented at the 2nd South Asia Geological Congress, held at Colombo, Sri Lanka, (January 19 - 24, 1995).
- Purvaja G.R. and Ramesh R. Significance of methane emission from coastal wetlands (Mangrove ecosystems) of India. Presented at the Joint 8th CACGP symposium/2nd IGAC Conference on "Global Atmospheric Chemistry", Fuji-Yoshida, Japan (Sep. 5 - 9, 1994).
- Ramesh R. and Purvaja G.R. Biogeochemistry of major Indian rivers. Presented at the First Global Change and Terrestrial Ecosystems Conference (May 23 - 27, 1994), Woods Hole, Massachusetts, USA.
- Ramesh R., Shiv Kumar K., Eswaramoorthi S., Purvaja G.R. and Pundarikanthan N.V. Water quality management in the urban environment of India. Presented at the Stockholm Water Symposium (August 10 - 14, 1993), Stockholm, Sweden.
- Ramesh R. and Subramanian V. Geochemical characteristics of the major tropical rivers of India. Presented at the international Association of Hydrological Sciences, Fourth Scientific Assembly (July 11 - 23, 1993), Yokohama, Japan.
- Ramesh R. and Subramanian V. Transfer of dissolved and suspended solids from major rivers of India. Presented at the National Symposium on International Geosphere Biosphere Programme (April 21 - 24, 1993), Madras, India.
- Ramesh R., Purvaja G.R. and Pundarikanthan N.V. Coastal Environment and its Management in Tamil Nadu, India. Presented at the International Workshop on Coastal Zone Management (December 27 - 31, 1992), Dhaka, Bangladesh.
- Ramesh R. Nature of dissolved and suspended sediments in the Pulicat lake,

east coast of India. Presented at the 29th Int. Geological Congress (Aug 24-3 Sep1992), Kyoto, Japan.

- Ramesh R. and Krishnamoorthy R. Orbital monitoring of suspended sediments in coastal ecosystems of Tamil Nadu, India. Presented at the 2nd International Conference on Asian Marine Geology (Aug. 19 - 22, 1992) Tokyo, Japan.
- Ramesh R. Geochemistry and mineralogy of some post-glacial marine deposits of the St. Lawrence Lowlands. Presented at the XX General Assembly of the International Union of Geodesy and Geophysics (IUGG) (Aug. 11-24, 1991), Vienna, Austria.
- Ramesh R. Chemical composition of the Mackenzie river and its controlling factors. Presented at the XX General Assembly of the International Union of Geodesy and Geophysics (IUGG) (Aug. 11 - 24, 1991), Vienna, Austria.
- Ramesh R. Nature of the amorphous material in post-glacial sediments of the St. Lawrence Lowlands. Presented at American Geophysical Union Fall meeting (Dec., 4 - 8, 1989) San Francisco, California, USA.
- Ramesh R. Nature of marine (post glacial) clays in St. Lawrence Lowlands. Presented at American Geophysical Union Spring meeting (May 7 - 12, 1989) Baltimore, Maryland, USA.
- Ramesh R. Chemical composition of St. Lawrence river and its controlling factors. Presented at the International Association of Hydrological Sciences, Third Scientific Assembly (May 10 - 19, 1989) Baltimore, Maryland, USA.
- d'Anglejan B. and Ramesh R. Metal-rich coating on residual sand deposits in the St. Lawrence upper estuary. Presented in an International Symposium on Fate and effects of toxic chemical in large rivers and their estuaries (October 10 - 14, 1988) Quebec, Canada.
- Ramesh R. and Subramanian V. Heavy metal content in the sediments of major peninsular rivers of southern India. Presented at the 6th International Conference on Heavy Metals (September 15 - 18, 1987) New Orleans, USA.
- Ramesh R. and Subramanian V. The chemical composition of bed, suspended and core sediments in the River Krishna, India. Presented at the XIX General Assembly of the International Union of Geodesy and Geophysics (August 9 - 22, 1987) Vancouver, Canada.
- Ramesh R and Subramanian V. Mass transport in Krishna River basin, India. Presented at the Drainage basin sediment delivery conference (Aug. 4 - 8, 1986) Department of Geology, University of New Mexico, USA.
- Ramesh R. and Subramanian V. The status and relevance of Environmental Education in Indian Universities. Presented at the International Conference on Environmental Education (March 4 - 9, 1985) Vigyan Bhavan, New Delhi, India.
- Ramesh R. and Subramanian V. A study on the water mineral equilibria in the River Krishna. Presented at the Vth Indian Geological Congress, (Dec. 19 - 21, 1984), I.I.T. Bombay, India.
- Ramesh R. and Subramanian V. Some aspects of erosion and sediment transport of Krishna River basin. Presented at the Seminar on Environmental Aspects of Geology (Nov. 26 - 28, 1984), Centre for Earth Science Studies, Trivandrum, India.

Technical Report (Unpublished)

- Ramesh R. Converting Pulicat lake into freshwater reservoir: ecological and social consequences. Report submitted to the World Wide Fund for Nature, Gland Switzerland (1994).
- Ramesh R. Ground water and its environmental issues. Submitted to Water Resources Branch, Natural Resources and Energy Division, Department of Technical Co-operation for Development (UN/DTCD), (July 1989) New York..

Training Programs and Cruises:

1. Research Cruise in the Arabian Sea (February – March 1997) Conducted by the German Joint Global Ocean Fluxes Study (JGOFS).
2. Research Cruise in the Baltic Sea (December 1996 and April 1997) Conducted by the Max-Planck-Institute for Chemistry and the University of Hiddensee, Germany.
3. Training Program on Integrated Coastal Zone Management (22 July – 19 August 2000) at the University of Newcastle and the University of Bath, United Kingdom.
4. Training program and preparation of the manual on A Trainer's Manual for Integrated Coastal Management Capacity Development (2003) Le Tissier, M.D.A. et al., Published by Department of International Development (DFID), held at Vizag (November 2002).