

CV of Prof. P. Vethamony

Dr. P. Vethamony
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Educational Qualifications

Qualification	Year	Grade	Board/University	Subjects
Ph.D	1990	-	IIT Bombay, India	Coastal Engineering
MSc	1980	First class	Cochin University, India	Oceanography
BSc	1977	First class	Madurai- Kamaraj University, India	Physics, Mathematics and Chemistry

Immediately after obtaining PhD, received a UNDP fellowship (for 6 months) to visit Texas A&M University, NASA, NOAA and Oregon State University in USA during July –Nov1991, and Bedford Institute of Oceanography, Nova Scotia, Canada during Nov 1991- Jan 1992.

Research & Academic experience

Position	Organization	Period	
		From	To
CSIR-JRF	NIO, Goa, India	Oct 1980	Jul 1982
Trainee Scientist	NIO, Goa, India	Jul 1982	Feb 1983
Scientist-B	NIO, Goa, India	Feb 1983	Feb 1988
Scientist-C	NIO, Goa, India	Feb 1988	Feb 1993
Scientist-EI	NIO, Goa, India	Feb 1993	Feb 1998
Scientist-EII	NIO, Goa, India	Feb 1998	Feb 2004
Scientist-F	NIO, Goa, India	Feb 2004	Feb 2009
Scientist-G & Chief Scientist and AcSIR Professor	NIO, Goa, India	Feb 2009	Apr 2017
Visiting Faculty	IIT Kharagpur, India	Jul 2017	Jul 2017
Adjunct Professor	IIT Bombay, India	Aug 2017	Feb 2018
Research Professor	Qatar University, Qatar	Mar 2018	-

NIO - National Institute of Oceanography

IIT - Indian Institute of Technology

Subject Specialization

- i) Coastal processes and coastal engineering; interaction between winds, waves, currents and tides.
- ii) Marine environmental studies: hydrodynamics, pollutant transport, water quality, sediment transport, thermal plume, oil spill and dredge & effluent disposal.
- iii) Advisories to companies, industries and Govt. on EIA related to marine facilities such as water intake, marine outfall, submarine pipelines, breakwaters, SPMs and Port & Harbor development.

Academic Activities

- Taught the following courses in Goa University: Remote Sensing -1995; Coastal Structures -1996; Dynamical Oceanography - 2009.
- Co-Ordinator of AcSIR (CSIR Academy), NIO, Goa for the PhD course on ‘Tides and Waves’ (till April 2017)
- Taught “Waves and tides” and Introduction to Oceanography to the PhD students of AcSIR (till April 2017).
- Taught the course “Coastal processes and modelling” to the MTech/PhD students of Dept. of Ocean Engg & Naval Architecture, IIT Kharagpur (July 2017).
- Taken a series of seminars and taught the course “Marine Renewable Energy” to the MTech students of Ocean Engineering, Dept. of Civil Engg, IIT Bombay (Aug 2017 – Feb 2018).
- PhD supervisor of Kurukshetra University, Goa University, Andhra University, Bharathidasan University and CSIR AcSIR Academy.
- 9 students have been awarded PhD; 1 student submitted her PhD thesis; 1 student was awarded MSc (Engg) in Environmental Engg (by Thesis); supervised the Dissertation work of 20 MSc/ BTech/MTech/NAM (Bangladesh) students.
- Examiner for CUSAT University, Kochi, Kerala University and Goa University; VC’s FRC nominee for PhD students in Goa University; DRC member of IIT Bombay.
- Evaluated PhD theses from IIT Madras, IIT Kharagpur, IIT Delhi, Pune University, Cochin University/ Kochi, Kerala University, MS University/ Tirunelveli, Andhra University and Anna University/ Chennai.

Invited Talks

National: Invited talks were given at Indian Coast Guard, Mumbai and Delhi; Oil and Natural Gas Commission, Goa; Dept. of Higher Education, Goa; Madras Christian College, Chennai; Central Institute of Fisheries Education, Mumbai; Central Marine Fisheries Institute, Kochi; NITK Surathkal; VIT Chennai; CUSAT Kochi; IIT Kharagpur; IIT Bombay; NCESS Thiruvananthapuram; Mangalore University; Industries.

International: Invited talks were given at GST, Dubai; Tropical Marine Science Institute, NUS, Singapore; Okinawa National College of Technology, Japan; ICCT, Tsukuba, Japan; IIUM Univ, Malaysia; Obukhov Institute for Physics of Atmosphere of the Russian Academy of Sciences (IAP RAS), Moscow; East China Normal University, Shanghai; University of Edinburg, UK; CSIRO, Perth, Australia; Heriot Watt University, UK; International students when visited Goa; International Environmental Auditors; Scientists from SAARC countries.

National and International Committees

National:

- Member, Expert Appraisal Committee of Ministry of Environment and Forests and Climate Change (MoEF-CC) for Ports, CRZ and Infrastructure, Govt of India (2010).
- Served as a Member in the Selection Boards of IIT Kharagpur, Bharathidasan University, Shivaji University and NCESS (Ministry of Earth Sciences, Min. of Earth Sci, Govt. of India, Thiruvananthapuram).
- Member, Committee on Restructuring the Function of Central Water & Power Research Station (CWPRS), Pune, appointed by Ministry of Water Resources, Govt. of India in 2013 and 2016.
- Chairman, Pondicherry Beach Restoration Project, NIOT, Chennai, Min. of Earth Sci, Govt. of India (2015- continuing).
- Chairman, HYCOM Modelling Technical Committee, ICMAM, Chennai, Min. of Earth Sci, Govt. of India (2017- continuing).
- Member, Research Advisory Council, ICMAM, Chennai, Min. of Earth Sci, Govt. of India (2017- continuing).
- Vice Chairman, Indian National Conf. in Harbour & Ocean Engg (INCHOE-2014) at CSIR-NIO, Goa in February 2014.

International:

- National Consultant (for India), Marine Litter Program, South Asia Co-operative Environment Programme (SACEP), Colombo (Nov 2017– Mar 2018).
- Member, India-Brazil-South Africa Ocean Program (IBSA -OCEAN).
- Steering Committee Member of COHERENS project, Royal Belgian Institute Natural Sciences, Belgium (2008-2010).
- Member, Asia-Oceania Geosciences Society, Singapore (2007 – till date)
- Organizer, SAARC Workshop on Coastal and Marine Risk Mitigation, held in Goa during March 2008.
- Organizer, WISE International meeting at CSIR-NIO, Goa in March 2015.

Editorial Board

Member, Editorial Advisory Board of ISH Journal of Hydraulic Engineering (published by Taylor & Francis).

CSIR-NIO, Goa Committees (2011-2017)

- Chairman, International Sci & Tech Affairs Group (ISTAG)
- Chairman, Technical & Purchase Committee-1: Field equipment and Services
- Chairman, Benevolent Committee
- Chairman, Compassionate Appointment Committee
- Chairman, Local Grievance Committee
- Chairman, Project Assistant Recruitments (related to DU-71)
- Member, R & D Project Proposal Evaluation Committee
- Member, Business Development Group
- Member, PhD Registration Standing Committee
- Member, Standing Committee on Honorarium Distribution

Research Experience

- Reviewed papers for around 15 international journals and several International Conferences.
- Published 105 scientific papers in peer-reviewed international journals and books; 2 papers are under review in journals; 85 conference proceedings / abstracts; 9 Technical Reports; 153 National Project Reports; 5 Intl. Project Reports.
- Reviewed several project proposals received for funding from DST, GITA, MoES, MoEF, CSIR, IITs, etc.
- Was Project Leader for a nationally important project, “Integrated Coastal Zone Management (ICZM) Plan for the Gulf of Kachchh (GoK)” funded by ICMAM / MoES; this project involved massive data collection in 3 phases on all aspects of oceanography and modelling. 65 personnel participated in this field programme to collect observations in the entire GoK. Under ICZM plan of GoK, identified various issues in GoK and suggested solutions.
- Was Project Leader (since 2002) for a major ongoing NIO institutional project, “Modelling the impacts of environmental stresses on the coastal zone”. There were 34 members in this group: Scientists & Technical staff (17) and Research Scholars & Project Assistants (17).
- Carried out approximately 19 R&D National & International Projects and 155 National & International Contract Research / Consultancy Projects for various Govt. agencies, PSUs and industries dealing with coastal modelling; design parameters for coastal and offshore structures; sediment transport; water quality & ecology; coastal zone management; site selection for water intake, marine outfall, port & harbour, submarine pipelines, dredge disposal, SPMs; marine environmental impact assessment, etc.

R & D projects executed

National:

- Oceanography of the seas around India (funded by NIO and other Govt. Organizations): Member (1982-1997).
- Tethered float breakwater system to control sediment transport near tidal inlets (funded by the Salt Commissioner, GoI; experiments conducted at IIT-Bombay): Proj. Leader (1984-1987).
- Engineering analysis and design methodology for marine structures (funded by NIO): Member (1997-2002).
- Sea state with satellite inputs (P4 MSMR data utilization), funded by SAC, Ahmedabad: Member (1999-2002).
- Integrated Coastal Zone Management (ICZM) Plan for the Gulf of Kachchh, ICMAM/DOD, MoES: Project Leader (2002-2005).
- Coastal processes off Gujarat and Konkan coasts through measurements and modeling, SAC, Ahmedabad: Member (2003-2007)
- Ballast water control and management, DG Shipping, Mumbai: Member (2003-2007).
- Modelling the impacts of environmental stresses on coastal zone: Project Leader (2002-2007).
- Mathematical modelling and computer simulation, CSIR Network Project of NIO, Goa and CMMACS, Bangalore: Project Leader (2004-2007).

- Simulation and forecast of coastal winds, INCOIS, Hyderabad: Project Leader (2006-2007)
- Impact on the coastal zone due to anthropogenic pressures: Project Leader (2007-12).
- Impact of natural and anthropogenic stresses on the coastal environment of India: Project Leader (2012 -2017).
- Establishment of a National Facility for fingerprinting of oil spills and tar balls for the identification of source: Project Leader (2013-2016).

International:

- UNDP project on Satellite data analysis for oceanographic investigations, 1987-92; one of the components under this project is visit to various institutes and universities in USA and Canada for 6 months.
- Collaborative Project between Obukhov Institute for Physics of Atmosphere of the Russian Academy of Sciences (IAP RAS), Moscow and CSIR-NIO on wave modelling, 2011-2013.
- Project funded by Royal Society of London and DST, India, 2014; one of the components under this project is a visit to the University of Edinburg, Scotland to attend the UK-India International Scientific Seminar during March 2014 (jointly executed by IIT Bombay, IIT Delhi and ICMAM Chennai are the other partners).
- Awarded a UKIERI (UK and India) project on “Tidal Energy Resource Assessment for Potential Indian Sites and Impact of Energy Extraction on Environments”, and this project is jointly executed by Edinburgh University and CSIR-NIO, IIT Bombay and IIT Madras (2015-2017).
- Awarded a DST-RFBR (Russia and India) project on “A long-term statistical features of wind and wave fields in the Indian Ocean,” and this project will be jointly executed by IAP RAS, Moscow and CSIR-NIO (2015-17).
- A joint project on “Removing barriers to tidal energy development in India’s Gulfs”, between the Heriot Watt University and UK Engineering and Physical Sciences Research Council (EPSRC) and CSIR-NIO, 2016-17 (IIT Bombay was the other partner).
- South Asia Co-operative Environment Programme (SACEP), Colombo through ICMAM (MoES), Chennai awarded the Marine Litter Status of India (Nov 2017 – Mar 2018).
- The project proposal “Longshore Sediment Transport Simulations in a Changing Climate' submitted by IIT Bombay with me as a Co-PI“ to DST under the UK-India (UKIERI) collaborative program was awarded in Feb 2018.

Scientific Collaborations through MoUs

I have initiated the following scientific collaborations, and accordingly MoUs have been signed:

- **Environ Software Pvt Ltd, Bangalore and CSIR-NIO, Goa** signed an agreement in 2002 for “Developing and applying numerical models in marine projects jointly in the areas of hydrodynamics, tides, storm surges, currents and water quality and carrying capacity. Several projects have been completed utilising these models since then.

- **Bharathidasan University, Tiruchirappalli, Tamil Nadu and CSIR-NIO, Goa** signed a MoU in May 2016 to carry out research jointly in Marine Sciences comprising of Physical, Chemical, Biological and Geological Sciences (MoU valid upto May 2018).
- **Tropical Marine Science Institute (TMSI)/ National University of Singapore (NUS) and CSIR-NIO** signed a MoU in Oct 2009; one area of research is Ocean Dynamics, which includes remote sensing, sea level anomalies, storm surges, wave modeling and coastal circulation and admixture transport. This MoU was renewed, and extended upto March 2018.
- MoU between **Space & Earth Geodetic Analysis Laboratory, SEGAL, University of Beira Interior, Portugal and CSIR-NIO** was signed in Jan 2012; the identified joint research projects are: (a) to monitor the sea level in the Indian Ocean. This project aims to complement existing tide gauge installations by collocating one GNSS receiver in Goa where NIO is already operating one tide-gauge. (b) to compute accurate loading models and (c) to improve the Real-Time GNSS orbits in this part of the globe.
- The Brazilian funding agency CNPq has approved the project proposal submitted by the University of Sao Paulo (USP), Brazil under the India-Brazil-South Africa (IBSA) program. NIO, Oceanographic Institute, University of Sao Paulo, Brazil and Univ. of Cape Town, S. Africa are the partners. The main goal of the program is to develop a downscaling system to investigate impacts of large scale climate changes on coastal regions of the three countries using numerical modeling.
- MoU between **CSIR-NIO, India and AM Obukhov Institute of Atmospheric Physics of RAS (IAPRAS), Moscow, Russia** was signed in 2012 to carry out research on “Long term trends of wind and wave fields in the Indian Ocean”.
- MoU between **International Islamic University Malaysia and CSIR-NIO** was signed with the following objectives: Research in Marine Water Quality, Water Quality Modeling, Dispersion Modeling and Hydrodynamic Modeling.
- MoU was signed between **Environmental Science Center, Qatar University and CSIR-NIO** in Dec 2014 with the following objectives: Joint research work in marine sciences utilizing the respective resources and infrastructure, Capacity building through scientific exchanges and expertise sharing, EIA studies for coastal projects and Training in Marine sciences.

Visits abroad

I have visited the following countries for Cruises or Field/Project works, on Exchange visits or fellowships and attending meetings/Conferences/Workshops/Symposia:

1. Seychelles during March 1983: to participate in a cruise around Seychelles waters onboard R.V. Gaveshani.
2. Sri Lanka during March 1984: to participate in a cruise onboard R.V. Gaveshani and to visit NARA, Colombo.
3. China during June 1987: to attend the COPEDEC Conference in Beijing.
4. Italy during 26 September -28 October 1988: to attend one month course on ‘Ocean waves and tides’ held at the International Centre for Theoretical Physics, Trieste.

5. USA during July – Nov 1991: to undergo training in Altimetry under the Govt. of India – UNDP project on Satellite data analysis for oceanographic investigations.
6. Canada during Nov 1991- Jan 1992: to undergo training in Altimetry under the Govt. of India – UNDP project on Satellite data analysis for oceanographic investigations.
7. Singapore during 29-31 October 2001: to present a paper at the International Conference on Port and Maritime R&D Tech.
8. UAE during 26 June – 1 July 2005: invited by GST, Dubai to discuss on a Dubai Municipality project, “Coastal processes and modeling off Dubai”.
9. UAE during 19-21 Dec 2005: invited by GST, Dubai again to discuss on a Dubai Municipality project, “Coastal processes and modeling off Dubai”.
10. Oman & Yemen during 19-25 April 2006: invited by HMR, Muscat to discuss the project on EIA and modeling of Ras Issa coast, Yemen.
11. Yemen during 22-24 April 2006: to visit the Ras Issa coast in connection with a EIA project of HMR.
12. Australia during 13 – 25 April 2007: to present a paper at the Waves In Shallow Environments (WISE) Meeting held at Victoria, and to discuss the Australia – India Strategic Research Fund and possibilities for developing collaboration between NIO and Griffith University, Gold Coast.
13. Thailand during 30 July – 5 August, 2007: to attend and present a paper in the Fourth meeting of AOGS held in Bangkok.
14. France during 18-25 Sept 2007: invited to attend the GLOBWAVE Workshop, held in Ifremer, Brest, France.
15. Singapore during 29 Sept – 1 October 2007: to attend the International Maritime-port Tech and development Conf. as well as visit to Tropical Marine Science Institute, NUS, Singapore.
16. Maldives during 23-27 Oct 2007: invited to attend the SAARC Workshop on Coastal Zone Management; organized in Male by SAARC.
17. Brazil during 18-22 February 2008: invited to attend the First India-Brazil-South Africa (IBSA) meeting, followed by PIRATA meeting held at Natal, organized by Brazil Science & Tech Dept.
18. Oman during 11-19 April 2008: invited by HMR, Muscat to visit the project site at Barka and assessing the data requirements as well as project related discussions.
19. South Korea during 15-23 June 2008: to attend and present a paper in the Fifth meeting of AOGS held in Busan.
20. Singapore during 3 July – 2 September 2008: offered Visiting Research Fellowship by the Tropical Marine Science Institute, NUS, Singapore.
21. Belgium during 29 September - 5 October 2008: invited to attend the First Workshop for applications of the COHERENS model on marine environment, organized by the Royal Belgian Institute of the Natural Sciences, Brussels.
22. Singapore during 10 – 17 August 2009: organized a session in the Sixth meeting of AOGS held in Singapore; also presented a paper.
23. Japan during 24-29 March 2010: invited by the Okinawa National College of Technology, Okinawa to discuss about Coastal Environmental Problems and give a seminar.
24. Japan during 1-7 August 2010: invited as a speaker by the ICCT, Tsukuba to give a talk in the Environmental Issues session.

25. Taiwan during 08-12 August 2011: presented a paper in the Sixth meeting of AOGS held in Taipei.
26. Singapore during 25 September – 8 October 2011: Invited to discuss the work jointly initiated on MM5/WRF and WW3/WAM modeling under the NIO-NUS MoU.
27. Malaysia during 9 -13 October 2011: Invited to give a few lectures and to finalize the work at BERU/IIUM on Waste Assimilative Capacity.
28. Brazil during 03-11 March 2012: invited to attend the Third India-Brazil-South Africa (IBSA) meeting held in Rio De Janeiro, organized by Brazil Science & Tech Dept.
29. Singapore during 13 – 18 August 2012: organized a session in the AOGS meeting held in Singapore.
30. Russia during 22-30 August 2012: Exchange visit to Obukhov Institute for Physics of Atmosphere of the Russian Academy of Sciences (IAP RAS), Moscow, under the collaborative project between CSIR-NIO and IAP RAS on wave modelling.
31. China during 5-12 January 2013: invited to State Key Laboratory of Estuarine and Coastal Research (SKLEC), East China Normal University, Shanghai, to discuss on the Submarine Groundwater Discharge Project, and to give a few seminars.
32. Australia during 24-28 June 2013: Session convener and presented a paper in the 11th meeting of AOGS held in Brisbane.
33. UK during 25-29 March 2014: to the University of Edinburg, Scotland to attend the UK-India International Scientific Seminar, organized by Royal Society of London and DST, India.
34. UK during 6-13 June 2014: to attend the WISE (Waves In Shallow water Environment) meeting held at the European Centre for Medium-range Weather Forecasts, Reading.
35. Brazil during 18-22 August 2014: to attend the Steering Committee meeting of the Ocean Numerical Modeling Workshop, held under the India-Brazil-South Africa Cooperation Program in Oceanography (IBSA-Ocean).
36. Australia during 27-30 April 2015: as an expert to participate in the IORA Workshop on Marine Oil Spill Response Capability and Science Support, organized by CSIRO, Perth.
37. Russia during 5-19 Oct 2015: Exchange visit to Obukhov Institute of Atmospheric Physics of RAS, Moscow under the DST-RFBR Project.
38. Italy during 22-26 May 2016: to attend the WISE meeting held at ISMAR.
39. UK during 10-17 Dec 2016: invited to attend a joint project meeting on “Removing barriers to tidal energy development in India’s Gulfs”, organized by the Heriot Watt University and UK Engineering and Physical Sciences Research Council (EPSRC).

Students’ Guidance for Bachelors and Masters Dissertations

I have guided the following students for their Bachelors and Masters project work:

- (i) Malhotra Ankit (BTech), IIT Kharagpur, 2005. Review of studies carried out in the Hoogly Estuary.
- (ii) Jahfer Sharif, K.K. (MSc), CUSAT, Kerala, 2009. Numerical simulation of flow off Ratnagiri.

- iii) Goyal, R. (BTech), Indian School of Mines, Dhanbad, 2010. Modelling hydrodynamics and water quality off Dwarka.
- (iv) Haris, K. (MTech), CUSAT, Kerala, 2010. Numerical modelling of sediment dynamics off Mangalore.
- (v) Vinod Kumar, K. (MSc), CUSAT, Kerala, 2010. Simulation of hydrodynamics in the central west coast of India during Cyclone Phyan.
- (vi) Balaguru, B (MTech), Anna University, Chennai, 2010. Seasonal variations of eddy kinetic energy from altimeter observations.
- (vii) Gupta, P.R. (BTech), IIT, Guwahati, 2010. Hydrodynamics and pollutant transport off Mumbai Coastal Region
- (viii) Palanik Kumar K (MTech), Anna University, Chennai, 2011. Sea level and Eddy Kinetic Energy variability in the Bay of Bengal from Satellite Altimetry.
- (ix) Mohit Sharma (BTech), Presidency College of Engineering Kota, Rajasthan, 2011. A study on diffusion of coastal waters off Mumbai and estimating the diffusion coefficient.
- (x). Ebin, S. (MSc). School of Marine Science, Bharathidasan University, Tiruchirappalli, Tamil Nadu, India (2012). Elucidating the influence of climatic variability on water quality along the Indian coastal regions.
- (xi). Jerome, S (MSc). School of Marine Science, Bharathidasan University; Tiruchirappalli, Tamil Nadu, India, 2012. Deciphering surface water quality of Gulf of Khambhat through observations and water quality modeling.
- (xii). Saishree, A.(BSc). Pondicherry Central University, Puducherry, India, 2012. Recent shoreline changes of Puducherry coast - GIS and Remote Sensing Approach
- (xiii). Jerome, S. and Ebin, S.(MSc). School of Marine Science, Bharathidasan University, Tiruchirappalli, Tamil Nadu; India, 2013. Dissolved oxygen saturation and seasonal water quality variation in the Mandovi estuary, west coast of India.
- (xiv). Niraj. P.S (MTech), IIT Bombay, 2013. Pre-monsoon hydrodynamic modeling of Goa coast, West Coast of India.
- (xv). Selvam G. (BE), Indian Institute of Information Technology and Management, Thiruvananthapuram, India, 2014. Estimation of extreme and long term trends of Significant wave heights in the Indian Ocean.

(xvi). George Victor Emmanuel (MSc), School of Ocean Studies and Technology, Kerala University of Fisheries and Ocean Studies, 2015. A study on wave-current interactions during extreme weather events, using coupled ADCIRC+SWAN model.

(xvii). Logesh Babu (BTech), B.Tech Production Engineering, National Institute of Technology, Tiruchirappalli, 2016. Risk assessment and management of oil spill across the coast of Goa.

(xviii). Praveen Kumar (MSc), School of Earth, Ocean and Climate Science, IIT Bhubaneswar, 2016. Improving the coastal bathymetry using bathymetric and topographic datasets off Paradip, Orissa along the east coast of India, A summer internship report.

(xix). Sultan Al Nahian, Res. Associate, Dept. of Oceanography, University of Dhaka is working with me since Nov 2016 on “Catastrophic storm surge modelling in the Bay of Bengal using MIKE 21 FM” under NAM S&T Centre Research Training Fellowship for Developing Country Scientists (RTF-DCS).

(xx). Rupali S Patgaonkar completed her MSc Engg in Environmental Engg by Research in 2010. Her topic is, Pollutant dispersion and residence time of pollutant in the Gulf of Kachchh. VTU, Bangalore.

PhD Guidance

I have guided the following students for their PhD programs. They are all working in reputed organizations and continuing their research.

(i) Prasad Kumar Baskaran (Professor & Head, Dept. of Ocean Engg. and Naval Arch, IIT Kharagpur): awarded in 1998 for his thesis, “Ocean wave prediction model for the Indian Seas” by the Kurukshetra University.

(ii) V.M. Aboobacker (Assistant Professor, Faculty of Marine Sciences, King Abdulaziz University, Jeddah, Saudi Arabia): awarded in Feb 2011 for his thesis, “Wave transformation at select locations along the Indian coast through measurements, modelling and remote sensing” by the Goa University.

(iii) Grinson George (Scientist-F, CMFRI, Kochi): awarded in Nov 2011 for his thesis, “Fish larval transport in the coastal waters through ecological modeling” by the Goa University.

(iv) V. Suneel (Scientist, CSIR-NIO, Goa): awarded in Sept 2014 for his thesis, “Transport and finger-printing of tar balls deposited along the west coast of India” by the Andhra University.

(v) Mani Murali.R. (Sr. Scientist, CSIR-NIO, Goa): awarded in July 2016 for his thesis, “Coastal processes responsible for morphological changes along the central Orissa coast” by the Goa University.

(vi) Renjith V.R (Research Associate, IIT Bombay): awarded in Sept 2016 for his thesis, “Waste assimilative capacity studies of select regions of the west coast of India” by the Goa University.

(vii) Samiksha, S.V (Scientist, CSIR- NIO, Goa): awarded in Sept 2016 for her thesis, “Wave energy dissipation due to currents, suspended sediments and vegetation along the coast of India” by the Bharathidasan University, Tiruchirappalli.

(viii) Prakash Mehra (Principal Scientist, CSIR-NIO, Goa): awarded in April 2017 for his thesis, “Sea level variability at select coastal and Island regions in the Indian Ocean ” by the Goa University.

(ix) Soumya Mohan (Research Associate, IIT Kharagpur): awarded in Oct 2017 for her thesis, “Climate modes on inter-annual sea level variability in the Eastern Indian Ocean and South China Sea” by the AcSIR, New Delhi.

(x) R. Rashmi: submitted her thesis, “Momentum flux exchange processes in the marine atmospheric boundary layer” to the Bharathidasan University in Nov. 2017.

Publications (Journals/ Chapters in books/Conf. Proceedings/Abstracts and Reports)

Journals & Chapters in Books

Journals:

1. Vethamony, P, Gopalakrishna, VV and Varkey, MJ (1984): Wave spectra and statistics off Godavari during September-October 1980. *Mausam*, 35:199-204
2. Vethamony, P and Sastry, JS (1986): On the characteristics of multi peaked spectra of ocean surface waves. *J. Inst. Engrs (India)*: 66(CI), 3 & 4:129-132.
3. Rajamanickam, GV, Vethamony, P and Gujar, AR (1986): Effect of waves in the redistribution of sediments along the Konkan coast. *Proc. Indian Acad. Sci, (Earth Planet. Sci.)*, 95: 237-244.
4. Vethamony, P, Ramesh Babu, V and Ramesh Kumar MR (1987): Thermal structure and flow patterns around Seychelles group of Islands (Indian Ocean) during austral autumn. *Indian J. Mar. Sci*, 16: 179-183.
5. Sadharam, Y, Vethamony, P, Suryanarayana, A, Swamy, GN and Sastry, JS (1988): Heat energy exchange over a large water body under stable atmospheric conditions. *Boundary-Layer Meteorology*, 44: 171-180.
6. Prasanna Kumar, S, Vethamony, P and Murty, CS (1990): Wave-induced nearshore flow patterns in the vicinity of Cochin harbour, India. *Ocean & Shoreline Management*, 13: 111-125.

7. Vethamony, P, Chandramohan, P, Sastry, JS and Narasimhan, S (1992): Estimation of added-mass and damping coefficients of a tethered spherical float using potential flow theory. *Ocean Engng.*, 19(5): 427-436.
8. Vethamony, P and Sastry, JS (1993): Significance of relative velocity in the estimation of drag force of a tethered spherical float. *Ocean Engng.*, 20(4): 449-457.
9. Krishnakumar, V, Vethamony, P and Swamy, GN (1994): Preliminary investigations on transient erosion at Kalpakkam Beach, east coast of India during June 1990. *Mahasagar*, 27(1): 41-45.
10. Vethamony, P (1995): Wave attenuation characteristics of a tethered float system. *Ocean Engng.*, 22(1): 111-129.
11. Vethamony, P, Krishna Kumar, V and Swamy, GN (1996): Portable floating breakwater for controlling bar formation and sediment transport near tidal inlets; *J. Instn. of Engrs(I)*, 76: 185-188.
12. Unnikrishnan, AS, Gouveia, AD and Vethamony, P (1999): Tidal regime in Gulf of Kutch, west coast of India, by 2D model. *J. Waterway Port Coast. Ocean Eng.*, 125(6): 276-284.
13. Fernandes, AA, Sarma, YVB, Menon, HB and Vethamony, P (2000): Wave directional spectrum from SAR imagery. *Photonirvachak*, 28(1): 9-18.
14. Pankajakshan, T, Saran, AK, Gopalakrishna, VV, Vethamony, P, Araligidat, N and Bailey, R (2002): XBT fall rate in waters of extreme temperature: a case study in the Antarctic Ocean. *J. Atmos. Ocean. Technol.*, 29(3): 391-396.
15. Babu, MT, Sarma YVB, Murty, VSN and Vethamony, P (2003): On the circulation in the Bay of Bengal during northern spring inter-monsoon (March-April 1987). *Deep-Sea Res. (II: Top. Stud. Oceanogr.)*, 50(5): 855-865.
16. Dinesh Kumar, PK, P. Vethamony, MT Babu, K Srinivas and Tony J Thottam (2004): Oceanographic studies off Beypore port, west coast of India, to locate a dredge dumping site. *Environmental Monitoring and Assessment Vol. 90*, pp. 269-288.
17. P Vethamony, GS Reddy, MT Babu, E Desa and K Sudheesh (2005): Tidal eddies in a semi enclosed basin: a model study; *Mar. Envntl Res*, Vol. 59 (5), pp. 519-532.
18. E Desa, MD Zingde, P Vethamony, MT Babu, SN D'Souza and XN Verlekar (2005): Dissolved oxygen - a target indicator in determining health of the Gulf of Kachchh waters; *Mar. Poll. Bull*; Vol 50 (1) (2005), pp. 73 – 79.
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I was involved in the following Contract Research projects as Project Leader / Team member, and earned good ECF to the institute. The details of project reports submitted to Govt. Organizations and Industries are given below:

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42. Rapid marine environmental impact assessment of proposed marine facilities for naphtha fired power station at Kilarasadi, Tuticorin. Report No. NIO/SP-15/99 (SSP 1053).
43. Geotechnical bathymetry, water quality and sand spit stability studies of Jatadharmohan creek, Paradip, Orissa. Report submitted to Indian Oil Corp. Ltd, New Delhi. Report No. NIO/SP-23/99 (SSP 1006)
44. Evaluation of suitability of dredge disposal site off Mul-Dwarka. Report submitted to Gujarat Ambuja Cements Ltd., Mumbai. Report No. NIO/SP-7/2000. (SSP 1114).
45. Thermal re-circulation studies for the modified discharge location. Report submitted to KIER International Ltd., Chennai. Report No. NIO/CON - 3/2000. (CNP 1185).
46. Oceanographic studies off Beypore Port to locate a marine dumping site. Report submitted to Moblie Peeves Company Ltd., Chennai, Report No. NIO/SP- 7/2001 (SSP 1127).
47. Marine emergency management plan for 330MW combined cycle power plant at Pillaiperumalnallur, Nagapattanam, TN. Report submitted to PPN Power Generating Company Ltd., Chennai. Report No. NIO/CON - 2/2001 (CNP 1134).
48. Carrying capacity of the southern Gulf of Kachchh with respect to accidental petroleum hydrocarbon discharges at SPMs. Report submitted to BORL, Mumbai. Report No. NIO/CON-4/01 (CNP 0986).
49. Comprehensive Marine EIA for SPM/COT and sub-sea pipe line off Jhatipadar, Orissa. Report submitted to BPCL, Mumbai. Report No. NIO/SP- 32/2000. (SSP 1083).
50. Oil spill modelling and shoreline mapping at Dabhol. Report submitted to Dabhol Power Company, Dabhol. Report No. XXX (SSP 1238).
51. Confirmation of diffuser design and estimation of secondary dilution off Pydibeemavaram. Report submitted to Hydroair Tectonics (SPD), Mumbai. Report No. NIO/CON-1/02 (CNP 1291).
52. Sediment transport studies off PPN power plant, Pillaiperumalnallur. Report submitted to Marubeni Corporation, Chennai. Report No. NIO/SP-1/02. (SSP 1272).
53. Marine emergency management plan for crude oil & POL jetty of CPCL at Nagapattinam Port. Report submitted to CPCL, Chennai. Report No. NIO/CON-2/02 (CNP 1289).
54. Marine environment management strategies for the Gulf of Kachchh. Report submitted to Forest and Environment Department, Govt. of Gujarat, Gandhinagar. Report No. NIO/SP-13/2003 (SSP 1088).
55. Consultancy services on planning jetty at Amini Agatti, Kavaratti and Minicoy Islands (CNP1347). Sponsored by Lakshadweep Harbour Works, Kavaratti. Start date: 01/09/2002; End date: 31/08/2003.
56. Risk analysis of oil spill and oil spill response plan (CNP1358). Sponsored by Hindustan Petroleum Corporation Limited. Start date: 01/10/2002; End date: 30/06/2006.

57. Confirmation of diffuser design and estimation of secondary dilution off Luhara point, Dahej, Gujarat, Report No. NIO/CON -2/2003 (CNP 1377).
58. Oil spill risk analysis and contingency plan for BPCL, Mumbai. Report submitted to Bharat Petroleum Corporation Limited, Mumbai. Report No. NIO/CON – 4/2003, March 2003 (CNP 1382).
59. Engineering design and environmental data for a SPM terminal and submarine offshore pipeline off Mundra, Gulf of Kachchh. Report submitted to Gujarat Adani Port Ltd. Report No. NIO/SP-11/2003 (SSP 1385).
60. Wave hindcast and sediment transport model studies off Kayankulam and Kochi off Kerala. Report submitted to STUP consultants, Mumbai, Report No. NIO/SP - 25/2003 (SSP 1411).
61. EIA and CRZ studies on the proposed development activities along the water front between Panjim and Dona-Paula, Goa - Modeling Current Aspects (SSP1502). Sponsored by Goa State Infrastructure Development Corporation Limited, Goa. Start date: 01/04/2004; End date: 30/09/2004.
62. Metocean study for a single point mooring (SPM) and related facilities of KRL, Kochi. Report submitted to Kochi Refineries Limited, Ambalamugal, Kerala. Report No. NIO/SP-12/2004, September 2004 (SSP 1527).
63. Simulation and analysis of current, waves and surges for SBM and pipeline corridor at Vadinar, Gulf of Kachchh. Report submitted to Essar Oil Limited, Mumbai. Report No. NIO/SP-36/2004, December 2004 (SSP 1562).
64. Environmental monitoring for construction of Bridge at Ribandar Causeway and Reclamation for Approach road. Report submitted to GSIDC, Goa. Report No. NIO/SP-19/2004 (SSP 1523).
65. Environmental monitoring for dredging and reclamation for Berths 5A and 6A at Mormugao Harbour. Report submitted to MPT, Goa. Report No. NIO/SP- 32/2004 (SSP 1421).
66. Rapid EIA for desiltation of Panaji Bank of River Mandovi from New Patto Bridge up to the bus stop opposite Food and Drug Control Office. Report submitted to GSIDC, Goa. Report No. NIO/SP- 24/2004 (SSP 1542).
67. Monitoring of Environmental parameters in Kandla Port area. Report submitted to KPT, Kandla. Report No. NIO/SP- 27/2004.
68. Studies on suitability of a proposed site for Maintenance Dredge spoils disposal off Hazira. Report submitted to Hazira Port Private Limited, HPPL, Surat. Report No. NIO/SP-06/2005 (SSP 1580).
69. Model Studies on Waves and Currents off Mundra for Single Point Mooring (SPM) Systems and Connected Facilities (SSP1623). Sponsored by Gujarat Adani Port Ltd., Ahmedabad. Start date: 01/05/2005; End date: 30/06/2006.
70. Evaluation of sand spit stability due to phase II dredging at Jatadharmohan creek, Paradip, Orissa, report submitted to IOCL Ltd, December 2005. Report No. NIO/SP-33/2005. (SSP 1654).
71. Siltation studies for a proposed shipyard off Jageshwar, Bharuch, Gujarat, report submitted to ABG-Shipyard Ltd., Mumbai, March 2006. Report No. NIO/SP-10/2006 (SSP 1693).
72. Oil Spill risk assessment and preparation of oil spill contingency plan for Paradip Port- Indian Oil Corporation Ltd., Bhubaneshwar - NIO/CON-2/2006 (CNP 1647).

73. Oil Spill Risk Assessment and preparation of oil spill contingency plan for Port Blair Port (CNP1669). Sponsored by Indian Oil Corporation Limited. Start date: 01/09/2005; End date: 31/07/2008.
74. Engineering Design & Environmental Data off Kakinada, report submitted to GSPC Ltd., Gandhinagar. NIO/SP-15/2006 (SSP 1643).
75. Mathematical model studies on the hydrodynamics and sediment transport off Hazira, Gujarat. Report submitted to Gujarat Maritime Board, Gandhi Nagar, Gujarat. Report No. NIO/SP-28/2006. (SSP1548)
76. Oceanographic & Environmental Data for Single Point Mooring Terminals and submarine Offshore Pipelines Off Jamnagar, Gulf Of Kachchh, Gujarat, Leighton Contractors (India) Pvt Ltd, Mumbai. NIO/SP-32/2006 (SSP 1764).
77. Modelling of coastal processes dredge disposal transport shoreline changed and wave tranquility off Hazira. Report submitted to Hazira Port Pvt. Ltd., Ahmedabad. Report No. NIO/SP-29/2003 (SSP-1359).
78. Mathematical model studies on effect of dredging on the hydrodynamics, sediment transport, and the fate of dredge disposal in waters of Gautami-Godavari river, Andhra Pradesh, Report submitted to RIL. Report No. NIO/SP-28/2004 (SSP 1509).
79. Mathematical model and studies on the hydrodynamics and sediment transport off Hazira, Gujarat, Gujarat Maritime Board, Gandhinagar. Report No. NIO/SP-08/2006 (SSP 1548).
80. Demarcation of inland vessel's limit (IVL) off Mormugao Port region including Panaji – a pilot study, draft report submitted to Directorate General of Shipping, Mumbai. Report No. NIO/SP-45/2007(SSP 1621).
81. Comprehensive EIA studies for the proposed power plants, north of Krishnapatnam, Nellore Dist. A.P – Recirculation studies. Report to be submitted to Andhra Pradesh Power Development Co. Ltd, Hyderabad. Report No. NIO/SP-58/2007 (SSP 1818).
82. Probable locations for SPM and associated pipeline route in the Gulf of Kachchh- a conceptual study based on available information, Cairn Energy India Pty Limited. Report No. NIO/CON-3/2007 (CNP 1912).
83. Modelling of flow regime and sedimentation processes due to the proposed Port facilities in Kakinada Bay, Kakinada Seaports Ltd. Kakinada. Report No. NIO/SP-22/2007 (SSP 1788).
84. Numerical model studies for identification of treated effluent outfall structures off Yanam. Report submitted to Gujarat State Petroleum Corpn. Ltd., Gujarat. Report No. NIO/SP-36/2007 (SSP 1850).
85. Identification of a suitable location for a marine outfall off Mangalore and REIA for the combined effluent release from Mangalore Special Economic Zone, Mangalore Special Economic Zone Ltd, Mangalore. Report No. NIO/SP-03/2008 (SSP 1897).
86. Rapid EIA for the construction of a minor Jetty at the Panaji. Report submitted to GSIDC Ltd, Panaji. Report No. NIO/SP-15/2008 (SSP 1957).
87. Rapid EIA study for the Construction of Passenger jetty at Dona Paula. Report submitted to GSIDC, Panaji, Goa. Report No. NIO/SP- 46/2008 (SSP 1954).
88. Risk analysis of Algeria crude oil spills during unloading operations at and around SPM and pipeline corridor in the offshore of Bhogat, Arabian Sea. Report submitted to M/S Cairn Energy India Pty Limited. Report No. NIO/CON-15/2008 (CNP 2118).

89. Rapid EIA study for the construction of a Chodan Bridge at Salvador do Mundo-Madel Church, Report submitted to GSIDC, Panaji. NIO/SP-10/2009 (SSP 2050).
90. Studies for the identification of marine outfall and water intake locations for a power plant in Karnataka. Report to be submitted to Lanco Infratech Ltd, Gurgaon. NIO/SP-07/2009 (SSP 1934).
91. EIA for setting up a cruise terminal with bund for breakwater facilities at Aguada Bay, Goa. Report submitted to Alpha Consultants, Panaji. NIO/SP-26/2006 (SSP 1739).
92. Model simulation of oil spill for EIA & risk analysis assessment for the proposed second SBM facility at Paradip Refinery project. Report submitted to IOCL, N. Delhi. NIO/SP-85/2008 (SSP 1826).
93. Geophysical oceanographic surveys for integrated crude oil handling terminal at Paradip. Report submitted to IOCL, N. Delhi. NIO/SP-04/2009 (SSP 2090).
94. Studies for rapid EIA, EMP and RA for the proposed SPM and associated activities off Okhamadi based on one season field investigations. Report No. NIO/SP-98/2008, submitted to Cairn Energy India Ltd., Gurgaon (SSP 1981 – 1985).
95. Oil spill risk assessment, modelling studies and preparation of contingency plan for GMB Ports-4 nos. (Porbandar, Veraval, Jafrabad, Jakhau)(CNP2237). Sponsored by Gujarat Maritime Board. Start date: 01/05/2009; End date: 31/03/2012.
96. Modelling study for the intake and outfall of cooling water system for super critical thermal power project at Udangudi, Tuticorin Dist., Tamil Nadu, Report No. NIO/CON-15/2009. (CNP 2245).
97. Hydrodynamic modelling and wave tranquility study of Hazira Port Basin. Report No. NIO/CON-07/2010, submitted to Environ Software Pvt. Ltd., Bangalore. (CNP 2313).
98. Advisory Services Relevant to the Mitigation of impacts due to anthropogenic activities on Ecologically Sensitive Marine Habitats (CNP2270). Sponsored by New Kolkotta International Development Pvt. Ltd. (NIKD). Start date: 01/09/2009; End date: 30/04/2012.
99. Design and Environmental data for SPM and pipeline off Mundra, Gujarat. Report No. NIO/CON-10/2008, submitted to HPCL Mittal Pipeline Limited. (CNP 2074).
100. Impact of dredging along the Dhamra and Gahirmatha coastline. Report No. NIO/CON-12/2010, submitted to The Dhamra Port Company Limited. (CNP 2205).
101. Numerical modelling of oil spill in the vicinity of IOCL SPMs off Paradip. Report submitted to Indian Oil Corporation Limited, New Delhi. Report No. NIO/CON-13/2010. (CNP 2354).
102. Mathematical modelling studies for the proposed jetty alignment in connection with the coal based 2X800 MW Udangudi super critical thermal power project at Udangudi, Tuticorin district, Tamil Nadu. Report submitted to Udangudi Power Corporation Limited, Chennai. Report No. NIO/SP-14/2010. (SSP 2290).
103. Impact of proposed Adani port and breakwater on the Paradip coastline and adjacent port facilities. Report No. NIO/CON-19/2010, submitted to Mundra Port and Special Economic Zone Limited, Ahmedabad. (CNP 2411); amount sanctioned: Rs. 29.0 lakhs.

104. Study to identify the marine outfall and intake locations of the proposed desalination plant, Sponsored by Sterlite Industries (I), Ltd., Tuticorin (CNP2415). Report No. NIO/CON-20/2010.
105. Identification of suitable locations for outfall and intake at Yelluru in Udupi District for all the 4 units of Udupi Power Corporation Limited. Report No. NIO/CON-25/2010, submitted to Udupi Power Corporation Limited. (CNP 2412).
106. Study of the Impact of the Kalpasar project on the Port. Report submitted to M/s. National Environmental Engineering of Research Institute (NEERI), Nagpur. Report No. NIO/SP-36/2009 (SSP 2008).
107. Impact of Phase-I expansion of Dhamra Port on the Dhamra-Gahirmatha coastline and in the vicinity of Dhamra Port. Report No. NIO/CON-3/2011, submitted to Dhamra Port Company Ltd, Bhubaneswar Orissa. (CNP 2401).
108. Oil spill risk assessment, modelling studies and preparation of contingency plan for GMB Ports-4 nos.-(Magdalla, Alang, Bhavnagar, Dahej) (SSP2235). Sponsored by Gujarat Maritime Board. Start date: 01/05/2009; End date: 31/03/2013.
109. Oil spill risk assessment, modelling studies and preparation of contingency plan for GMB Ports-4 nos. (Okha, Bedi, Navlakhi, Mandvi) (SSP2236). Sponsored by Gujarat Maritime Board. Start date: 01/05/2009; End date: 31/03/2013.
110. Marine environmental Impact Assessment Studies for setting up of Coal based Saurashtra Super Thermal Power Plant and for the Construction of Captive Coal Jetty at Gojiness in Jamnagar, Gujarat. Report submitted to Universal Crescent Power Pvt Ltd., (UCPPL) Noida. Report No. NIO/SP-11/2011 (SSP 2293).
111. Rapid EIA studies for i) Intake and Outfall of the Coal based Thermal Power Plant (TPP) at Gojiness, Gujarat and ii) Construction of Port for TPP at Gojiness, Gujarat - Chemical oceanographic studies (SSP2295). Sponsored by Universal Crescent Power Private Limited. Start date: 30/11/2009; End date: 31/01/2012.
112. Environmental Impact Assessment for alignment 4 A of Sethusamudram channel (SSP2319). Sponsored by Sethusamudram Corporation Limited, Chennai. Start date: 16/01/2010; End date: 15/01/2014.
113. Wave hindcasting (30 years) off East Coast of India (KG Basin) at two deep water locations (SSP2329). Sponsored by Oil and Natural Gas Corporation Ltd., Mumbai. Start date: 04/02/2010; End date: 31/03/2013.
114. Oceanographic studies off Manavalakurichi to identify the processes of nearshore sediment transport controls part-b: hydrodynamic modelling and satellite studies. Report submitted to Indian Rare Earths Ltd. Manavalakurichi, Kanyakumari dist. Report No. NIO/SP-15/2011 (SSP 2358).
115. To identify a suitable location for releasing non-potable water in Shiroda estuary, Redi, Maharashtra (SSP2417). Sponsored by Infrastructure Logistics Private Limited. Start date: 09/07/2010; End date: 01/06/2011.
116. CRZ demarcation, identification of intake and outfall locations for cooling water and comprehensive marine EIA studies for the proposed APPDCL 5x800 MW Vadarevu Thermal Power Project at Vadarevu, Prakasam District, A.P. - Waves & Tides and recirculation study (SSP2435). Sponsored by Andhra Pradesh Power Development Company Limited (APPDCL), Hyderabad. Start date: 01/09/2010; End date: 31/03/2014.

117. Numerical modelling studies for proposed 2100MW Tadadi Combined Cycle Power Plant (SSP2450). Sponsored by Karnataka Power Corporation Limited, Bangalore. Start date: 01/10/2010; End date: 31/10/2013.
118. Environment impact assessment studies in the sea route for laying HVDC cable and overhead line of India-Sri Lanka Grid Inter connecting Project sponsored by Power Grid Corporation of India Ltd, Bangalore (SSP2491). Report No. NIO/SP-36/2011.
119. Oceanographic studies off Cuddalore to identify the marine outfall for the refinery and intake outfall locations of the desalination plant PART-B: Modelling Studies. Sponsored by M/s. Nagarjuna Oil Corporation Ltd., Cuddalore (SSP2470). Report No. NIO/SP-52/2011.
120. EIA Study for the proposed dredging of approach channel and the changes in the development layout: Part 3. Report submitted to Goa Shipyard Limited. Report No. NIO/SP-21/2012 (SSP 2615).
121. Met-Ocean studies for design of storm water pipeline off Paradip, Orissa (SSP2616). Sponsored by Leighton Welspun Contractors Private Limited. Stat date: 08/06/2011; End date: 07/10/2012.
122. Numerical modelling study of hydrodynamics for Environment Impact Assessment (EIA) of proposed marina at Sancoale Bay. Report submitted to Yacht Haven (Goa) Pvt. Ltd. Report No. NIO/SP-27/2012 (SSP 2522).
123. Environment impact assessment (EIA) for proposed marina facilities at Sancoale Bay- Sediment transport studies at the Sancoale Bay (SSP2523). Sponsored by Yacht Haven (Goa) Pvt. Ltd. Start date: 08/12/2010; End date: 31/07/2013.
124. Recirculation Study for 2nd Ultra Mega Power Project (UMPP) near Nayunipalli Village, Prakasam District, A.P. (SSP2530). Sponsored by PFC Consulting Limited, New Delhi. Start date: 11/12/2010; End date: 31/12/2013.
125. Wave hind casting (30 years) off Mumbai High at two deep water locations (SSP2565). Sponsored by Oil and Natural Gas Corporation Ltd., Mumbai. Start date: 09/02/2011; End date: 31/03/2014.
126. Preparation of Oil Spill Management Plan off Veera near Kandla, KPT. Report submitted to Kandla Port Trust. Report No. NIO/SP-36/2012 (SSP 2655).
127. Numerical modelling of wave characteristics at a select location off Goa, Sponsored by AMOS Pvt Ltd, New Delhi (CNP2701), Report No. NIO/CON-4/2012.
128. Marine Oil spill modelling and risk analysis studies for the offshore oil terminal - OOT, Vadinar, Kandla Port Trust. Report submitted to Kandla Port Trust, Seva Sadan, -III, New Kandla, Gujarat, Report No NIO/CON-5/2012 (CNP 2568).
129. Marine EIA studies associated with Phase IIA of Project Sea Bird, Karwar, Karnataka, Sponsored by Project Seabird, New Delhi (SSP2664). Report No. NIO/SP-42/2012.
130. Numerical modelling to study the impact of alignment 4 A of Sethusamudram channel on marine environment. Report submitted to Sethusamudram Co. Ltd., Chennai. Report No.NIO/SP-45/2011 (SSP2324).
131. Rapid Marine Environmental Impact Assessment and CRZ studies for KG Deen Dayal development project of GSPC: Part A, RMEIA. Report submitted to Gujarat State Petroleum Co. Ltd. Report No. NIO/SP-25/2012 (SSP2650).
132. Rapid Marine Environmental Impact Assessment and CRZ studies for KG Deen Dayal development project of GSPC: Part B, numerical modelling studies. Report

- submitted to Gujarat State Petroleum Co. Ltd. Report No. NIO/SP-25/2012 (SSP2651).
133. Oceanographic studies and data collection in Kovvada site district Srikakulam, A.P (Current observations using ADCP and shoreline stability studies). Report submitted to Nuclear Power Co. of India Ltd. Report No. NIO/SP-63/2012 (SSP2457).
 134. Oceanographic studies and data collection in MithiVirdhi site district Bhavnagar, Gujarat (Current observations using ADCP and shoreline stability studies). Report submitted to Nuclear Power Co. of India Ltd. Report No. NIO/SP-64/2012 (SSP2461).
 135. Hydrodynamics and wave studies for offshore facility for power plant at Tadadi, Karnataka (SSP2483). Sponsored by Karnataka Power Corporation Limited, Bangalore. Start date: 01/10/2010; End date: 31/12/2012.
 136. Numerical modelling studies for proposed thermal Power Plant (TPP) at Kasargod, Kerala (SSP2493). Sponsored by Kerala State Industrial Development Corporation, Govt. of Kerala, Kowdiar Road, Thiruvananthapuram. Start date: 04/02/2011; End date: 31/03/2014.
 137. To assess the salinity and water quality parameters for salinity profile of a creek originating from the Thane Creek near Mumbra, Mumbai for CRZ demarcation (SSP2731). Sponsored by Focus Maritime & Marine Services Pvt. Ltd. Start date: 28/06/2012; End date: 25/07/2012.
 138. Rapid Marine Environmental Impact Assessment of the proposed desalination plant, Tuticorin. Report submitted to Sterlite Industries (India) Limited, Tuticorin. Report No. NIO/SP-2/2013 (SSP2750).
 139. Rapid Marine EIA Studies associated with the beach resort at Sagartirth, Vengurla Taluk, Maharashtra: Physical aspects. Report submitted to Elite Township Pvt. Ltd. Report No. NIO/SP-14/2013 (SSP2748).
 140. Pre-Feasibility Study for location selection for construction of two Jetties for Integrated Supply Base for ONGC, EOA, Kakinada at Antarvedi: Part 2. Report submitted to Oil and Natural Gas Co. Ltd., Chennai. Report No. NIO/SP-25/2013 (SSP2782).
 141. Investigations related to marine EIA for establishment of a facility for Shivaji Maharaj Memorial with a statue off the coast of Mumbai: Part 2 (SSP2817). Sponsored by Public works department, Government of Maharashtra. Start date: 01/06/2013; End date: 30/09/2016.
 142. Shoreline change study at Mundra Water Front Development Plan (WFDP) area. Report submitted to Adani Port and Special Economic Zone Ltd. Report No. NIO/SP-06/2014 (SSP 2821).
 143. Environmental Impact Assessment study for the desilting of a section of the river Sal between Khareband bridge and Talaulim-Varca new bridge, Captain of Ports, Govt. of Goa (SSP2909).
 144. Simulation studies for the identification of marine outfall and intake locations off Cuddalore: B: Numerical modelling studies. Report submitted to Nagarjuna Oil Corporation Ltd., Cuddalore. Report No. NIO/CON-1/2014 (CNP2847).

145. Oil spill risk analysis and contingency plan for Paradip Port, Part A: Oil spill modelling studies. Report submitted to Paradip Port Trust. Report No. NIO/CON-3/2014 (CNP2854).
146. Dispersion modelling study of effluent discharge into sea water, Naval Materials Research Laboratory, DRDO (CNP2812).
147. Study of inland water of NW-1 for the stretch between Farakka and 'base line' declared by MEA. Sponsored by Transport Dept., Govt. of West Bengal. Report No. NIO/CON-5/2016 (CNP2931).
148. Net Environmental Benefit Analysis (NEBA) for Oil spill risk contingency planning for Kandla and Vadinar Ports, Gujarat, sponsored by Kandla Port Trust (CNP2980).
149. Preparation of Oil Spill Management Plan off Veera near Kandla, sponsored by Kandla Port Trust (SSP2655).
150. Numerical modelling of the sediment transport around the seawater intake system for the 2x600MW Udupi power project, sponsored by Udupi Power Co. Ltd (SSP2872).
151. Directional wave measurements at Kadmath and current and tide measurements at Kadmath, Kiltan, Chetlat and Bitra Island, Lakshadweep, Andaman-Lakshadweep Harbour works (SSP2953).
152. EIA study for the proposed Marina off Reis Magos - Physical component, sponsored by M/s Spark Healthline Pvt Ltd. (SSP2958).
153. Marine EIA study for expansion of 2 X 800 MW (Phase-II) Udupi Thermal Power Project - Numerical modelling part, sponsored by Udupi Power Corporation Limited (SSP2968).

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154. Wave hindcasting, wave tranquility and sediment transport studies for a fishing harbour at Sohar, Sultanate of Oman. Sponsored by DHI India, New Delhi, October 2002 (CNP 1344).
155. Modelling hydrodynamic dredge plume dispersal and oil spill movement off Ras Lssa coast Yemen in the vicinity of proposed Jetty outfall and intake facilities. Sponsored by HMR Env'tl Engg. Consultants, Sultanate of Oman, 2007 (CNP 1775).
156. Modelling the Impact on the coast of Muscat, Oman, due to Coastal Tourism Development Project "The Jewel of Muscat". Sponsored by HMR Env'tl Engg. Consultants, Sultanate of Oman, 2008 (CNP 1779).
157. Modelling study on temperature and salinity dispersion and recirculation around intake and outfall of power and desalination facilities at Barka, Sultanate of Oman. Sponsored by HMR Env'tl Engg. Consultants, Sultanate of Oman, 2010 (CNP 1975).
158. Modeling the impact on the coast off Barka due to the development of Marina at Barka, Sultanate of Oman. Sponsored by HMR Env'tl Engg. Consultants, Sultanate of Oman, 2011 (CNP 2076).

