

Curriculum Vitae

Dr. Vidya P. J.

Scientist D,

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RESEARCH INTEREST

Physical Oceanography, Ocean-Biogeochemistry, Numerical modeling, Bio-physical coupling, Air-Sea interaction, Deep sea circulation and associated biogeochemistry, Teleconnection between tropics and polar region.

EDUCATION

Post-Doc (Physical Oceanography)	2016-2018	National Institute of Oceanography, Goa
Ph.D (Marine Sciences)	2009-2014	Goa University and NIO, Goa, India
M.Sc. (Oceanography)	2003-2005	Cochin University of Science and Technology, India
B.Sc. (Physics)	2000-2003	Calicut University, India

RESEARCH AND DEVELOPMENT EXPERIENCE

- **Scientist D**, National Centre for Antarctic and Ocean Research, Headland, Sada, Vasco, Goa (22/11/2023 to till date)
- **Project Scientist II**, National Centre for Antarctic and Ocean Research, Headland, Sada, Vasco, Goa (20/04/2018 to 21/11/2023)
- **DST fast track young scientist**, Physical Oceanography Division, CSIR- National Institute of Oceanography, Goa, India. **(2016-2018)**
- **Project Assistant**, Physical Oceanography Division, CSIR-National Institute of Oceanography, Goa, India. **(2013-2014).**

- **Senior Research Fellow**, Physical Oceanography Division, CSIR-National Institute of Oceanography, Goa, India. **(2009-2012)**
- **Project Assistant**, Physical Oceanography Division, CSIR-National Institute of Oceanography, Goa, India. **(2006-2009)**

AWARDS / RECOGNITIONS

- Best Poster award in the International SOLAS Summer School, Cargese, France (Surface Ocean Lower Atmosphere Study project Office, UK), 2011.
- DST-SERB Fast Track Young Scientist Scheme was awarded in December 2015.
- Council of Scientific and Industrial Research **(CSIR) Senior Research Fellowship (SRF)**, 2009.
- Council of Scientific and Industrial Research **(CSIR) National Eligibility Test (NET)** for lectureship (CSIR), 2011.
- Best presentation among the SETHU (CSIR-NIO) Research Fellows Forum, 2012.
- Indian National Science Academy (INSA) airfare funding to France.

PUBLICATIONS IN PEER-REVIEWED JOURNALS (As per JCR 2021 Impact Factor = 79.006), h index = 11 and citations = 313

1. **Vidya, P. J.**, Chatterjee, S., Ravichandran, M., Guatham, S., Nuncio, M. and Murtugudde, R. (2023). Intensification of Arabian Sea cyclone genesis potential and its association with Warm Arctic Cold Eurasia pattern. **npj Climate and Atmospheric Science**, <https://doi.org/10.1038/s41612-023-00476-2>. **(IF: 9.448)**
2. P. G. Nisha, T. S. Pranesha, **P. J. Vidya**, M. Ravichandran and Raghu Murtugudde. (2023). Trend and Interannual Variability of the Arabian Sea Heat Content. *Journal of Marine Systems*, <https://doi.org/10.1016/j.jmarsys.2023.103935>. **(IF: 3.01)**
3. Athulya, R., Nuncio, M., Chatterjee, S. and **Vidya, P.J.** (2023). Characteristics of mean and extreme precipitation in Ny Ålesund, Arctic. **Atmospheric Research**, <https://doi.org/10.1016/j.atmosres.2023.106989> **(IF: 5.965)**
4. M. Nuncio, Athulya R. Naveen Nandan, Sourav Chatterjee, Satheesan. K, Asutosh Acharya, Subeesh M.P, **Vidya, P.J.** (2023), Hails in Ny Alesund, Svalbard, atmospheric vertical

structure and dependence on circulation, *Natural Hazards*, DOI:10.1007/s11069-023-05907-0 (IF-3.182).

5. Suhas shetye; K Nandakumar; Siby Kurian; Mangesh Gauns; Damodar M. Shenoy; Hema Naik; **P.J Vidya**; Supriya G. Karapurkar (2022), Organic carbon dynamics in the continental shelf waters of the eastern Arabian Sea (*Environ Monit Assess* 194, 716. <https://doi.org/10.1007/s10661-022-10390-4> (IF -3.307).
6. Santhosh Kumar S, Reshma K N, R. Manimurali , **P.J. Vidya** (2022), Spatial variability of mud bank along the southwest coast of India and its impacts. (*Estuaries and Coast*, **10.1007/s12237-022-01059-9**) (IF – 3.032).
7. A.V. Chndrasekhararao, Siby Kurian, **P.J. Vidya**, Mangesh Gauns (2021), Seasonal and inter-annual variability of chemotaxonomic marker pigments in the north-eastern Arabian Sea, **Deep Sea Research Part-I**, doi.org/10.1016/j.dsr.2021.103679. (IF 2.995).
8. **P.J. Vidya**, Balaji. M and Manimurali R (2021), *Cyclone Hudhud-eddy induced phytoplankton bloom in the northern Bay of Bengal using a coupled model*, **Progress in Oceanography** 197 (2021) 102631. (IF 4.060).
9. Suhas Shetye, Siby Kurian, **P.J. Vidya**, Mangesh Gauns, D. M. Shenoy, S.G. Aparna, K. Nandakumar, and Supriya G. Karapurkar (2020), Total organic carbon and its role in oxygen utilization in the eastern Arabian Sea, **Marine Pollution Bulletin**, <https://doi.org/10.1016/j.marpolbul.2020.111939>. (IF 4.049).
10. **P.J. Vidya**, Ravichandran, M., Murtugudde, R, Subeesh, M. P., Chatterjee, S., Neetu S and Murukesh, N. (2020). Increased cyclone destruction potential in the Southern Indian Ocean, **Environmental Research Letters**, <https://doi.org/10.1088/1748-9326/abceed>. (IF. 6.096).
11. Siby Kurian, A.V. Chndrasekhararao, **P.J. Vidya**, D. M. Shenoy, Mangesh Gauns, H. Naik, S.G. Aparna (2020), Role of oceanic fronts in enhancing phytoplankton biomass in the eastern Arabian Sea during an oligotrophic period, **Marine Environmental Research**, <https://doi.org/10.1016/j.marenvres.2020.105023>. (IF 3.445).
12. **P.J. Vidya** , Ravichandran, M., Subeesh, M. P., Chatterjee, S., and Murukesh, N. (2020). Global warming hiatus contributed weakening of the Mascarene High in the South Indian Ocean. **Scientific Reports**, 10, 3255, <https://doi.org/10.1038/s41598-020-59964-7>. (IF. 4.011).
13. D.M. Shenoy, I. Suresh, H. Uskaikar, Siby Kurian, **P.J. Vidya**. Gayatri Shirodkar, Mangesh Gauns and S.W.A Naqvi (2020) ,*Variability of dissolved oxygen in the Arabian Sea Oxygen Minimum Zone and its driving mechanisms*, **Journal of Marine Systems**, <https://doi.org/10.1016/j.jmarsys.2020.103310>. (IF. 2.539).
14. Suhas Shetye, Siby Kurian, Mangesh Gauns and **P.J. Vidya** (2019), 2015-16 ENSO contributed reduction in oil sardines along the Kerala coast, south-west India, **Marine ecology**, DOI:10.1111/maec.12568, (IF-1.355).

15. **P.J. Vidya** and Siby Kurian (2018), *Impact of 2015-2016 ENSO on the winter convective bloom and associated phytoplankton community shift in the north eastern Arabian Sea*, **Journal of Marine Systems**, 186 (2018) 96–104, (IF 2.539).
16. A.V. Chndrasekhararao, Siby Kurian, **P.J. Vidya**, Mangesh Gauns, Damodar M. Shenoy, Hema Naik, Venugopal Reddy T, and S.W.A Naqvi (2017), *Phytoplankton response to contrasting physical regimes and evidence against the dramatic human-induced shift in winter-time community composition in the eastern Arabian Sea*, **Journal of Marine Systems**, 182 (2018) 56–66, (IF 2.539).
17. B. Manikandan, J. Ravindran, **P.J. Vidya**, S. Shrinivaasu, R Mani Murali, K Paramasivam (2016), *Coral recruitment pattern and their response to recurrent stress events in Palk bay, Southeast coast of India*, **Environmental Science and Pollution research**, 24 (15), 13614-13625,(IF 2.76).
18. **P.J. Vidya**, Santosh Das, R. Mani Murali (2017), *Contrasting Chl-a responses to the tropical cyclones Thane and Phailin in the Bay of Bengal*, **Journal of Marine Systems**, 165, 103-114,(IF 2.539).
19. B. Manikandan, J.Ravindran, **P.J. Vidya** and R. Mani Murali (2016), *Bleaching and recovery patterns of corals in Pak Bay, India: An indication of resilient bleaching reef*, **Regional Studies in Marine Science**, 8(1); 2016; 151-156, (IF 1.462).
20. R. Mani Murali, **P.J. Vidya**, Poonam Modi and Seelam Jaya Kumar (2014), *Site selection for offshore wind farms along the Indian coast*, **Indian Journal of Geo Marine Sciences**, 43(7), 14011406, (IF 0.31).
21. **P.J. Vidya**, and S. Prasanna Kumar (2013), *Role of mesoscale eddies on the variability of biogenic flux in the northern and central Bay of Bengal*, **Journal of Geophysical Research (Oceans)**, 118,doi:10.1002/jgrc.20423 5760-5771, (IF 3.440).
22. **P.J. Vidya**, S. Prasanna Kumar, Mangesh Gauns, Arati Verenkar, Daniela Unger and V. Ramaswamy (2013), *Influence of physical and biological processes on the seasonal cycle of biogenic flux in the equatorial Indian Ocean*, **Biogeosciences**: 10(11) ; 2013; 7493-7507, (IF 3.753).

Manuscript under Revision/review

1. A. Mukherjee, Nuncio Murukesh, Abhisek Chatterjee, P. Singh, **P. J. Vidya** and Sourav Chatterjee (2023), "Role of oceanic processes on recent decadal changes of sea surface temperature and ice concentration in the Antarctic Ocean, **Ocean Modelling** (Under Review).
2. Sheryl Oliveira Fernandes , Dhiraj Paul , Surya Prakash Lankalapalli , SrinivasRao, **P.J Vidya**, John Kurian Palayil (2023),Upper circumpolar deep water influences microbial functional gene composition and distribution at southern Central and eastern Southwest Indian Ridges, **Science of the Total Environment**(Under Review).

Book Chapter

3. Rahul Mohan, Suhas shetye, Shramik Patil, Sabu P, Vidya P. J, Melena Soares (2020), Biogeochemistry and ecology of the Indian Sector of the Southern Ocean, AGU Book chapter, <https://doi.org/10.1002/9781119554356.ch9>.

PARTICIPATION IN OCEANOGRAPHIC CRUISES

- Participated in an Oceanographic Cruise in the Indian Ocean for a period of 45 days.
- Operation of the oceanographic instruments such as CTD, AUTOSAL, Meteorological measurements, deployment of drifting Buoys and ARGO floats, etc.

KNOWLEDGE OF COMPUTER SKILLS/SOFTWARE

- Operating systems: Linux and Window OS
- Software known: FERRET, GMT, and MATLAB, SUFER, GRAPHER, ORIGIN
- Mathematical modeling: I have set-up a high resolution (1/12 degree) biogeochemical model (ROMS –Fennel) for the Bay of Bengal region in the HPC cluster at CSIR-NIO.

CONFERENCES/WORKSHOPS

1. Attended a **National workshop** held at NPOL, Cochin, related to the “Hydrographic Features on Coastal Waters” in October 2005.
2. Attended the **National conference** on “Emerging trends in Meteorology and Oceanography” held at Cochin in May 2007.
3. Participated in the **International Conference** on “Monsoon 2007”. Held at IISc, Bangalore on July 2007.
4. Participated in the **SAFARI** (Societal Application in Fisheries and Aquaculture using Remotely-sensed Imagery) training course on Remote Sensing and Ecosystem-Based Management, including Fisheries held at the National Institute of Oceanography, Kochi during 11-13 Feb 2010.
5. Participated summer school on “**Dynamics of the Northern Indian Ocean**” in National Institute of Oceanography, Goa during 18 June - 29 July 2010.
6. Participated in the **International** summer school on “**Global climate change (ClimECO2)**” in Brest, France during 23-27 August 2010.

7. Participated in the **International “Surface Ocean Lower Atmosphere Studies (SOLAS)”** summer school in Cargese, France during 28 Aug -10 Sep 2011.
8. Participated in the **International Winter School on "Using models to advance our understanding of Indian Ocean biogeochemical variability"** held at CSIR-National Institute of Oceanography, Goa, India during 16-21 February 2015.
9. Participated in the **ONR Arabian Sea Science workshop (International) held at CSIR-NIO**, during 2-3 August 2018 and gave a presentation titled “Impact of 2015–2016 ENSO on the winter bloom associated phytoplankton community shift in the northeastern Arabian Sea”.
10. Participated in **National Oceanographic Workshop (NOW) 2018**, held at INCOIS, Hyderabad and gave an oral presentation entitled “Observation of anomalous subsurface warming (2016 winter) in the Prydz Bay: Evidence from Argo floats”.
11. Participated in the **National Conference on Polar Science** at NCPOR, Goa, during 20 - 22 August 2019 and gave a presentation titled “Warming of the Southern Indian Ocean during the Global warming hiatus and its impacts on the cyclone destructive potential”.
12. Participated in **National conference on Earth’s Changing Climate Virtual Conference**, Lucknow, India, during 13-19 October 2020 and gave a presentation titled “Increased cyclone destruction potential in the Southern Indian Ocean”.

THESIS/DISSERTATION CO-SUPERVISED

Ph.D

Nisha, P.G. (2019-ongoing), Mangalore University, India: “Interannual and long term trends in the Arabian Sea heat content”.

M.Tech

Roma Vargheese (2018), NIO, Goa: “Recent trends in Chlorophyll a in the southeastern Arabian Sea”.

M.Sc

Rajive Krishnan R (2016), CSIR-NIO, Goa: “Seasonal equatorial undercurrents in the Indian Ocean using ROMS”.