

Bijesh C M

Curriculum Vitae



Project Scientist-I
National Center for Polar and Ocean Research
Ministry of Earth Science
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Education

- November 2017 – **Ph.D. in Marine Science**, Goa University, Goa, India (Submitted)
May 2022 *Title: Morphotectonic architecture and evolution of the postulated microcontinental blocks and deep offshore regions adjacent to the southwestern continental margin of India and its conjugate regions of Madagascar*
- 2010-12 **Master of Science in Marine Geophysics**, Cochin University of Science and Technology, Kerala, India (7.72 CGPA).
- 2007-10 **Bachelor of Science in Physics**, Calicut University, Kerala, India (88 %).

Research Experience

- 2022-Present **Project Scientist I**, National Center for Polar and Ocean Research, Goa, India
- 2015-2022 **Project Scientist B**, National Center for Polar and Ocean Research, Goa, India
- 2013-2015 **Project Scientist B**, National Institute of Ocean Technology, Chennai, India
- 2012-2013 **Project Assistant II**, CSIR-National Institute of Oceanography, Goa, India

Research Interests

- Marine Geophysics
- Plate Tectonics
- Submarine Geomorphology and Geohazards

Professional Training / Courses

- Training on**
- Multibeam Echo-sounder (Reson) & PDS: Delivered by Reson at Chennai, Tamil Nadu, India in 2013.
 - Marine GIS; Delivered by IIC Technologies, Vizag, India in 2019
- Scientific cruise** Spent more than 500 days in the Arabian Sea and Bay of Bengal, through ~18 expeditions since 2011, onboard Research Vessels ORV Sagar Kanya, MGS Sagar, RV Sindhu Sankalp, MV Sagar Manjusha and actively participated in the planning and acquisition of geophysical surveys/data (Multibeam bathymetry, Sub bottom Profiler, Sea-surface Gravity and Magnetic) and served as Chief Scientist to several expeditions.

Selected Details of offshore experience:

- Participated in several shallow water bathymetric surveys in the Eastern Continental Margin of India (Bay of Bengal) onboard CRV Sagar Purvi, CRV Sagar Paschimi and MV Sagar Manjusha for seafloor mapping, identification and interpretation of geomorphological features in Bay of Bengal. (within the time period of December 2013 – April 2015)
- Chief scientist onboard RV MGS Sagar for marine geophysical data acquisition under EEZ mapping project in the Arabian Sea with main regard to deep water swath bathymetry. (January - February 2016, July - August 2016)
- Chief scientist onboard ORV Sagar Kanya for seafloor mapping, identification and interpretation of geomorphological features in the Andaman Offshore region, Bay of Bengal. (April - May 2016, October – November 2017)
- Chief scientist onboard RV MGS Sagar for marine geophysical data acquisition under EEZ mapping project in the Eastern Continental Margin of India (Bay of Bengal) with main regard to deep water swath bathymetry. (October- November 2016, April- May 2017, February - March 2019, July-August 2019, November- December 2019)

Professional Skills

- Caris HIPS and SIPS
- Geosoft Oasis Montaj
- Generic Mapping Tool (GMT)
- Python (Beginner)
- PDS 2000
- Arc GIS
- Linux/Windows systems
- Seismic Unix

Achievements

Nominated for Prof. Jagdeo Singh Memorial Grant at Indian Geophysical Union Annual Convention (2012)

Personal Information

Permanent Address: Meppalatt House, Pudukpanam Post, Vatakara, Kozhikode Dt., Kerala, India 673105
Date of birth: 21/09/1989
Nationality: Indian
Passport Number: Z6046015

Research Publications

Peer-reviewed Journals

- **C.M. Bijesh**, V. Yatheesh, P. John Kurian, J. John Savio, Vasudev Mahale, Abhishek Shet, S. Gautham. Conjugate nature of the Alleppey-Trivandrum Terrace Complex with the Northern Madagascar Ridge in the early opening model of the Arabian Sea: Evaluation based on an integrated geophysical investigation. *Marine Geophysical Research*, 43, 14 (2022). <https://doi.org/10.1007/s11001-022-09469-x>

- **Bijesh C.M.**, Twinkle D., Susanth S., John Kurian P. Large scale submarine landslide in the Cochin offshore region, southwestern continental margin of India; a preliminary geophysical understanding. (*Under Review: Landslides, Springer, Ref.No: LASL-D-21-00393*).
- **Bijesh, C.M.**, Yatheesh, V., Twinkle, D., Tyagi, A., Kurian, P.J. Sagar Kanya Bathymetric High Complex: An extinct giant submarine volcanic caldera in the Eastern Arabian Sea? *Geomorphology*, 373, 107488 (2021). <https://doi.org/10.1016/j.geomorph.2020.107488>
- Susanth S., Kurian P.J., **Bijesh C.M.**, Twinkle D., Abhishek Tyagi, Rajan S. Controls on the evolution of submarine canyons in steep continental slopes: geomorphological insights from Palar Basin, southeastern margin of India. *Geo-Marine Letters*, 41:14 (2021). <https://doi.org/10.1007/s00367-021-00685-9>
- Susanth S., John Kurian P., Twinkle D., **Bijesh C. M.**, Abhishek Tyagi, Potential submarine landslide zones off Chennai, Southeast Continental Margin of India. *Regional Studies in Marine Sciences*, 45:101832. <https://doi.org/10.1016/j.rsma.2021.101832>
- **Bijesh, C.M.** and Kurian, J. P. Morphology of the two unnamed seamounts in the Arabian Basin and their probable tectonic implications. *Current Science*, 118 (7), 1118-1123 (2020). [doi:10.18520/cs/v118/i7/1118-1123](https://doi.org/10.18520/cs/v118/i7/1118-1123)
- **Bijesh C.M.**, John Kurian P., Yatheesh V., Abhishek Tyagi, Twinkle D. Morphotectonic characteristics, distribution and probable genesis of bathymetric highs off southwest coast of India. *Geomorphology*, 315, 33-44 (2018). <https://doi.org/10.1016/j.geomorph.2018.04.015>

Conferences/Seminars

- Twinkle D., **Bijesh C.M.**, Tyagi A., John Kurian, P. Crustal structure and rift architecture of East Antarctic margin through integrated geophysical data analysis. *National Conference on Polar Sciences NCPS 2017*, 16-17 May 2017.
- **Bijesh C.M.**, Twinkle D., Mahesh N., Susanth S., Tyagi A., John Kurian, P. Qualitative analysis of multibeam bathymetry data: case study from the continental margin off Gujarat, Arabian Sea. *5th National Conference of Ocean Society of India OSICON-17*, 28-30 August 2017.
- Susanth S., **Bijesh C.M.**, Twinkle D., Tyagi A., John Kurian P. Morphology and Geohazards along Cauvery-Palar Basin, Southeastern Indian Margin. *5th National Conference of Ocean Society of India OSICON-17*, 28-30 August 2017.
- **Bijesh C.M.**, Yatheesh V., Twinkle D., Tyagi A, John Kurian, P. Identification, distribution and geophysical characteristics of bathymetric highs off southwest coast of India. *54th Annual Convention of Indian Geophysical Union (IGU)*, CSIR-NGRI, Hyderabad, December 2017.
- **C.M. Bijesh**, D. Twinkle, N. Mahesh, P. John Kurian, V. Yatheesh. Geophysical Mapping of the Sagar Kanya Seamount, Arabian Sea. *SCOR-InterRidge workshop*, CSIR-NIO, Goa, 14-16 November 2018.
- John Kurian P., **Bijesh C. M.**, Abhishek Tyagi. Deep sea sinuous channel-levee system in the Upper Indus fan; novel understanding from the high resolution swath bathymetry data. *OSICON-2019*, 12-14 December 2019, CMLRE, Kochi.
- Susanth S., John Kurian P., Twinkle D., **Bijesh C.M.**, Abhishek Tyagi. First insights to the nature of submarine landslides and outer shelf cracking in North Palar Basin, Eastern

Continental Margin of India. International conference on frontiers in Marine Science, Challenges and Prospects, *MARICON-2019*, 16-20 December 2019, held at School of Marine Sciences, Cochin University of Science and Technology.

- **C.M. Bijesh**, V. Yatheesh, P. John Kurian, D. Twinkle, A. Tyagi. Morphotectonics of the southwestern continental margin of India and the adjacent deep offshore regions. *International Indian Ocean Science Conference (IIOSC-2022)*, Goa, 14-18 March 2022.