



Dr. Thamban Meloth

Group Director, Polar Sciences

ESSO-National Centre for Polar & Ocean Research

(Ministry of Earth Sciences), Vasco da Gama, Goa - 403804

RESEARCH AREA

Cryosphere • Palaeoclimatology • Glaciology • Polar biogeochemistry

PROFESSIONAL CAREER

2021 Scientist-G, ESSO-National Centre for Polar and Ocean Research, Goa
2016 Scientist-F, ESSO-National Centre for Antarctic Ocean Research, Goa
2011 Scientist-E, ESSO-National Centre for Antarctic Ocean Research, Goa
2007 Scientist-D, ESSO-National Centre for Antarctic Ocean Research, Goa
2002 Scientist-C, ESSO-National Centre for Antarctic Ocean Research, Goa
2002 Scientist-B, CSIR-National Institute of Oceanography, Goa
2001 JSPS Fellow, National Institute of Advanced Industrial Science & Technology, Japan
2000 Asst. Professor, Government College Kasaragod, University of Kannur, Kerala
1997 DAAD Fellow, University of Bremen, Bremen, Germany
1993 Research Fellow (CSIR-NET), National Institute of Oceanography, Goa

AWARDS & HONOURS

2020 Fellow, National Academy of Science India
2013 National Geoscience Award, Ministry of Mines, Government of India.
2008 NIPR Visiting Scientist Award, by the National Institute of Polar Research, Japan.
2006 Certificate of Merit for Outstanding Contributions by Ministry of Earth Sciences, India
2003 Prof. Naganna Gold Medal by the Mineralogical Society of India.
2001 START Young Scientist Award by International Geosphere Biosphere Programme.
2001 JSPS Fellowship, by Japanese Society for Promotion of Science (JSPS), Japan.
2001 Young Scientist Award, by the Indian Science Congress Association (ISCA).
1999 PAGES / START Fellowship by PAGES (IGBP), Switzerland.
1997 Young Sedimentologist Award by Indian Association of Sedimentologists (IAS).
1997 DAAD Fellowship by German Academic Exchange Service (DAAD), Germany.

ROLES AT INTERNATIONAL & NATIONAL SCIENTIFIC COMMITTEES

- Member, Executive Council Panel on Polar and High Mountain Observations, Research, and Services (EC-PHORS), World Meteorological Organization (WMO) (2022 onwards)
- Member, Scientific Steering Group, Cryosphere and Climate (CliC) Project of the World Climate Research Programme (WCRP) (2022 - 2026)
- Member, Scientific Steering Committee, International Partnerships in Ice Core Sciences (IPICS) (2015 onwards)
- Member, SCAR (Scientific Committee on Antarctic Research) National Committee, Indian National Science Academy (2020-2023)
- Member, IASC (International Arctic Science Committee) Cryosphere Working Group (2020 onwards)
- Member-Secretary, Research Advisory Committee, *National Centre for Polar & Ocean Research* (2014 onwards)

PROJECTS - ONGOING & COMPLETED

- *SIWHA* (Sea Ice and Westerly winds during the Holocene in coastal Antarctica) project, initiated jointly between India, UK and Norway to drill a deep ice core from coastal Antarctica (2021-2026), funded by Ministry of Earth Sciences, India and Natural Environment Research Council (NERC), UK.
- *MADICE* (Mass balance, dynamics, and climate of the central Dronning Maud Land coast, East Antarctica), Indo-Norwegian Project, funded by Ministry of Earth Sciences (India) and Research Council Norway (2016-2020)
- *HiCOM* (Himalayan Cryospheric Observations and Modelling) collaborative project with national institutions to undertake studies across Indian Himalaya (2017-2021), funded by Ministry of Earth Sciences, India
- *Cryosphere and Climate*, funded by Earth System Science Organization, Ministry of Earth Sciences, India (2013-2017; 2017-2020; 2021-26, continuing scheme under PACER)
- *Glacio-chemical studies on ice cores from the coastal and inland region of East Antarctica*, funded by Ministry of Earth Sciences (2007-2012)
- *Southern Ocean palaeoceanography during the late Quaternary from the Indian sector*, funded by Indian Space Research Organization (ISRO) (2007-2010)
- *Establishment of Ice Core Laboratory*, funded by Department of Ocean Development, India (2002-2007)
- *High resolution study on late Quaternary palaeoceanography of the northern Indian Ocean*, SERC Fast Track Young Scientist project, funded by Department of Science and Technology, India (2000-2002)

CAPACITY BUILDING IN POLAR AND CRYOSPHERE STUDIES

PhD supervised (completed) – 10

PhD Supervision (ongoing) – 06

PhD Supervision (completed)

- 2022 *Ajit T. Singh* (Goa University) - Hydrology and hydrochemistry of Chandra basin glaciers, Western Himalaya (Co-guide)
- 2022 *Akansha Patel* (IIT Roorkee) – Impact of climate variability on glacier mass balance in regional, basinal and local scale (Co-guide)
- 2019 *Gautami Dev Samui* (Goa University): Biogeochemistry of selected supraglacial ecosystems in coastal Antarctica (Guide).
- 2019 *Ankit Pramanik* (University of Oslo) – Climatic mass balance and meltwater routing of glacierized area of Kongfjord basin, northwest Svalbard (Co-guide)
- 2019 *Vikram Goel* (University of Oslo) – Current status and past evolution of ice rises in Dronning Maud Land, Antarctica (Co-guide)
- 2018 *Abhilash Nair* (Goa University) – Late Quaternary studies on climate variability in Indian sector of the Southern Ocean using diatoms (Co-guide)
- 2017 *Roseline Thakur* (Goa University): Study of size segregated chemical composition of aerosols and air-snow interaction of ionic precursors over the Polar Regions (Guide)
- 2017 *Mahalinganathan K* (Goa University): Chemical and Stable isotope records of Antarctic snow and its implications on palaeoclimate studies (Guide)
- 2015 *Runa Antony* (Goa University): Bacteria and their role in organic carbon dynamics in Antarctic snow (Co-Guide)
- 2014 *Manoj M.C.* (Goa University): Geochemical studies on late Quaternary sediments from the Indian sector of Southern Ocean (Guide)

PhD Supervision (ongoing)

Tariq Ejaz (Goa University) - Triple-oxygen and hydrogen isotope based ice core records of Antarctic climate variability (Guide)

Rahul Dey (Goa University) - Reconstruction of Antarctic Climate variability using high resolution ice core layer stratigraphy (Guide)

Aritri Sanyal (Goa University) – Biogeochemical cycling potentials of cryoconite-hole environments in coastal Antarctica (Guide)

Sunil Oulkar (Goa University) – Spatio-temporal changes in glacier mass balance using modeling and observations in the Chandra Basin, Western Himalaya (Guide)

Sibin Simon (Goa University) - Extreme precipitation events and its influence on the Antarctic ice core climate records (Guide)

Shivam Sundram (Goa University) - Reconstruction of spatio-temporal evolution of glaciochemistry and climate variability in coastal Dronning Maud land, East Antarctica (Guide)

PUBLICATIONS –

Published more than **110 peer-reviewed publications** in reputed high impact international and national journals (detailed list of the peer-reviewed publications are at https://ncpor.res.in/upload/publication/TM_Pub_2022.PDF).

Thamban's research publications have received about **3400 citations** (Google Scholar>> <https://scholar.google.co.in/citations?hl=en&user=mstcHuYAAAAJ>)

Thamban's **h-index is 26** and **i10-index is 63** (Google Scholar), supporting the high impact of the scientific contributions.
