

International Conference on

**“Engaging with Polar Regions: Science, Human Ecology and Geopolitics (EPR 2023)”**

26<sup>th</sup>– 28<sup>th</sup> October 2023

*Organised by*

International Centre for Polar Studies, Mahatma Gandhi University, Kottayam  
Kerala, India

*In association with*

National Centre for Polar and Ocean Sciences (NCPOR), Goa

**Venue – Seminar Hall, School of Environmental Sciences, Mahatma Gandhi University**

**Tentative Programme Schedule**

Time	Program		
	<b>Day 1 (26.10.2023)</b>		
8.00 – 9.00	<b>Registration</b>		
9.00 – 10.00	<b>Inauguration</b>		
	Welcome	:	Mahesh Mohan, Convener, EPR 2023
	Introductory remarks	:	C.T Aravindakumar, Vice Chancellor, Mahatma Gandhi University, Kerala Director, ICPS
	<b>Inauguration by Lighting lamp and inaugural address</b>		KP Sudheer, Executive Vice President, KSCSTE
	Special remarks	:	Thamban Meloth, Director, NCPOR
	Felicitation	:	B. Keralavarma, Member Syndicate
	Felicitation	:	B Prakashkumar, Registrar
	Vote of thanks	:	Mathew A. Varghese, Co-convener
10.00- 10.45	<b>Plenary talk</b>	:	
	Exploring the Poles in a Changing World – New Frontiers		Thamban Meloth
10.45-11.00	<b>Tea Break</b>		
	<b>Session - 1</b>		<b>Geopolitics -1</b>

	Chair	:	Rasik Raveendra
	<b>Invited talk</b>		
11.00- 11.30	Navigating Polar Geopolitics: Major and Emerging Powers in the Arctic and Antarctic		<b>KM Seethi, Mahatma Gandhi University, Kerala</b>
11.30-12.00	India's Arctic Policy, Engagement and Interests	:	Anurag Bisen, Manohar Parrikar Institute of Defence Studies
12.00-12.30	The Ukraine Russia Conflict Changing geopolitical dynamics in the Arctic and the rising Prospects of Russia-India Cooperation in the Arctic	:	KB Usha – Jawaharlal Nehru University, New Delhi
	<b>Oral Presentations</b>		
12.30-12.40	Geopolitics in the Arctic Region: Energy resources, its security and Environmental Implications	:	Saira Grace Saju
12.40-12.50	Arctic: Geopolitics, and Security Threats in Indian Perspective	:	Arti Kumari
12.50-13.00	The Arctic- a Cartesian for Conflict: Geopolitics of the Arctic Circle.	:	Zahra Khalid
13.00-14.00	<b>Lunch</b>		
	<b>Session – 2</b>		<b>Polar Science</b>
	Chair	:	AP Pradeep Kumar
	<b>Invited Talk</b>		
14.00-14.30	Requirements and needs for interdisciplinary academic education in Polar environmental Sciences.	:	Roland Kallenborn
14.30-15.00	Indian endeavors in Polar Science and international linkages	:	Rasik Ravindra
15.00-15.30	The Strategic Dimensions of Polar Studies - An Indian Perspective	:	Sulagna Chattopadhyay
15.30 - 16.00	The occurrence, transport and fate of microplastics in the Arctic	:	Crispin Halsall
16.00-16.30	<b>Tea break</b>	:	
16.30-17.00	Planetary Health and the Arctic	:	Christian Sonne (Hybrid)
17.00-17.20	Microplastics in Polar Environment : Studies on Arctic Fjord Kongdfjorden and on Open Ocean Water of Southern Ocean	:	EV Ramasamy
	<b>Session - 3</b>		<b>GeoPolitics-2</b>
	Chair	:	KM Seethi
	<b>Invited Talk</b>		
17.20-17.40	<i>Arctic Passage: The Northern Sea Route and Asia</i>		T.G Suresh - Jawaharlal Nehru University, New Delhi
	<b>Oral Presentations</b>		
17.40-18.00	Freedom of Navigation in the Russia-Ukraine Conflict- Challenges and Implications	:	Arundhati Wamorkar

18.00-18.10	Assessing the Russia- China Geo-Strategic Convergence in the Arctic	:	Shashi Bhusan Kr Vishwakarma
18.10-18.20	Protection of the Polar Biodiversity in an energy starved era	:	Navin. S
18.20-18.30	Prospects of Indo-Russian Collaboration in the Arctic	:	Ashok Alex Luke
<b>18.30-20.00</b>	<b>Cultural Program (Seminar Hall, School of Pure and Applied Physics)</b>		
<b>20.30</b>	<b>Dinner (School of Environmental Sciences)</b>		
	<b>Day -2 (27.10.2023)</b>		
	<b>Plenary talk</b>		
9.00-9.30	Arctic and its Geopolitics: Why it matter to India	:	Suba Chandran
	Chair		<b>Roland Kallenborn</b>
	<b>Session 4</b>		<b>Arctic</b>
	Chair		<b>Roland Kallenborn</b>
	<b>Invited talk</b>		
9.30-10.00	Does Arctic Climate Affect Indian Monsoon - A Paleoclimatic Perspective	:	Manish Tiwari
10.00-10.20	Arctic aerosol observations and modelling	:	Rohit Srivastava
10.20-10.40	Chemicals of Emerging Arctic Concern from Kongsfjorden, Svalbard	:	Anu Gopinath
10.40-11.00	Tea break	:	
	<b>Oral Presentations</b>		
11.00-11.10	Microplastics Associated Trace Metals in The Sediments of Kongsfjorden, Svalbard, Arctic	:	Manju P Nair
11.10-11.20	Walrus knocks in the Central Arctic Ocean	:	R. Kannan
11.20-11.30	Spatio-temporal variation of sea ice and melt onset over various seas of the Arctic Region using EOS-06	:	Dency V Panicker
11.30-11.40	Distribution of mercury in the sediments of high Arctic Fjords,Svalbard	:	Saritha VK
	<b>Session- 5</b>		<b>Human Ecology</b>
	<b>Chair</b>		
	<b>Invited talk</b>		
11.40-11.50	Putting Human Ecology and Ethnography in Perspective: Openings into Polar Contexts	:	Mathew A Varghese
11.50-12.20	The Third Pole-Himalayas and the Failing Models of Development	:	Tikender Singh Panwar
12.20-12.40	Introduction to a discussion of Indigenous sovereignty in the Arctic.	:	Knut Rio (hybrid mode)
12.40-13.00	Arctic indigenous lives in the time of climate change	:	Gro Brigit Ween (hybrid mode)
<b>13.10</b>	<b>Lunch break</b>		
<b>14.30</b>	<b>Boating in the Vembanad Lake</b>		

18.30	<b>Cultural program and Dinner at Kottayam Club, Kumarakom</b>		
	<b>DAY -3 (28.10.2023)</b>		
	<b>Session 6</b>		<b>Antarctic</b>
	<b>Chair</b>	:	<b>Crispin Halsall</b>
9.30-10.00	<b>Plenary Talk</b>		
	The Antarctic Treaty System: India's Legacy in the Polar Region	:	Rahul Mohan
	<b>Oral Presentations</b>		
10.00-10.10	Paleolimnological history of an East Antarctic coastal lake: Hidden secrets of magnetic minerals	:	Joju George Sebastian
10.10-10.20	Antarctic Ice Surface Properties Inferred from Ka- and Ku-Band Altimeter Waveforms	:	Priyanka Mahesh Patel
10.20-10.30	Polar Cyclones and their Impact on Variability in Antarctic Sea Ice Extent: Insights from Autumn 2019	:	C. C. Bajish
10.30-10.40	Multi-index assessment of major and trace elements in the surface water of the lacustrine system of Schirmacher Hills, East Antarctica	:	Binish MB
10.40-10.50	Late Quaternary climate change in Larsemann Hills and Schirmacher Oasis of East Antarctica	:	Deepak Yuvraj Gajbhiye
10.50-11.00	Assessment of the Frontal Dynamics of the Gangotri Glacier since 1866 onwards and Its Determinants	:	Surbhi Gaur
11.00-11.10	Understanding the Landscape Evolution and Quaternary Glacier Dynamics in the Janavi Ganga of NW Garhwal Himalaya	:	Neelam Kharab
11.10-11.20	Mapping of Contemporary Glacial Dynamics in the Upper Bhagirathi Basin of Northwest Garhwal Himalaya from 1965-2023.	:	Pooja
11.20-11.30	Tea Break		
10.30	<b>Poster Sessions</b>		
	Influence of the AMOC and Northern High Latitude Climate on Mascarene High-Monsoon Relation from the Medieval Warm Period to the Little Ice Age	:	Sharmila Sherin VM
	Factors affecting the distribution of coccolithophores in the surface water and sediment of the Southern Indian Ocean	:	Pallavi Choudhari
	Therapeutically relevant L-asparaginase enzyme from Arctic actinomycetes	:	Shahana Kabeer S.
	The Southern Ocean Freshening Reduce the Contribution of the Antarctic Ice-sheet in Global Sea-level Rise	:	Ajay
	Contaminant of Emerging Concern (CECs) Profiling in the Fragile Arctic Ecosystem: Insights and Implications for Environmental Conservation	:	KK Nejumal

	<b>Session - 8</b>		<b>Polar Science - 2</b>
	<i>Invited talk</i>		
	<b>Chair</b>	:	<b>Usha K. Aravind</b>
11.30-12.00	GNSS Applications in Ice-sheet Dynamics: Studies by Indian Researchers at Antarctica and Arctic Regions	:	Sunil PS
12.00-12.20	Changing emissions of climatically sensitive gases in the Polar Regions through the Anthropocene	:	Anoop Sharad Mahajan
	<b>Oral Presentations</b>		
12.20-12.30	Exploring Snow-Ice Dynamics In Greenland Using Multi-Polarization Data	:	Amrutha Anna Mathew
12.30-12.40	Reconstructing Quaternary Glaciation, Chronostratigraphic Sequences and Landscape Evolution in the NW Garhwal Himalaya.	:	Pawan Kumar
12.40-12.50	Auroral Dynamics near Equatorward and Poleward Boundaries of the Southern Auroral Oval	:	Sunil Kumar
12.50-13.00	Investigation of the Brightness Temperature and Backscatter Variations Observed over Antarctic Ice Shelves Using OSCAT-03 Ku-Band Scatterometer	:	Unnati Pravinbhai Leuva
13.00-13.10	A Cross-Regional Analysis of Heavy Metal Contamination in Precipitation	:	Vishnu S Moorchildot
<b>13.00-14.00</b>	<b>Lunch</b>		
	<b>Session 9</b>		<b>Polar Science -3</b>
	<b>Chair</b>	:	<b>K Jayachandran</b>
	<i>Invited Talk</i>		
14.30-15.00	Microbial diversity in polar regions : A potential source for discovery of novel drug candidates	:	Sajeevan TP
	<b>Oral Presentations</b>		
15.00-15.10	Exploring the less explored: Unveiling Novel life in the frozen frontiers of Arctic	:	Femi Anna Thomas
15.10-15.20	Microbial community structure - controlled by salinity-induced stratification in the Changing Arctic	:	Jabir Thajudeen
15.20-15.30	Bioprospecting of Antarctic benthic fauna in search of bioactive Marine Natural Products (MNPs).	:	Shekar Babu Kumbha
<b>15.30</b>	<b>Valedictory</b>		
<b>16.00</b>	<b>High Tea</b>		

