

**4th Conference on
Science & Geopolitics of
HIMALAYA-ARCTIC-ANTARCTIC**



**PROGRAMME
SCHEDULE**



Organised By



LIGHTS (Learning in
Geography, Humanities,
Technology and Science)



In collaboration with



School of Environmental
Sciences and Center for Study
of Regional Development,
Jawaharlal Nehru University,
New Delhi

4th Conference on Science & Geopolitics of HIMALAYA-ARCTIC-ANTARCTIC Focussing Climate Change

PROGRAMME SCHEDULE

November 30, 2017

REGISTRATION

9:00 - 9:30

**JNU CONVENTION
CENTRE AUDITORIUM I**

INAUGURAL SESSION

9:30 - 9:35

**Welcome Address by Dr
Rasik Ravindra, Chairman,
Organising Committee**

9:35 - 9:40	Address by Dr Shailesh Nayak , Distinguished Scientist and Fmr Secretary, MoES. Guest of Honour
9:40 - 9:45	Address by Dr P S Goel , Raja Ramanna Professor, NIAS, ISRO. Guest of Honour
9:45 - 9:55	Address by H E Nils Ragnar Kamsvag , Ambassador Royal Norwegian Embassy to India. Guest of Honour
9:55 - 10:05	Address by Dr Trilochan Mohapatra , DG, ICAR and Secretary DARE. Guest of Honour
10:05 - 10:15	Address by Dr Ashutosh Sharma , Secretary DST. Guest of Honour
10:15 - 10:25	Address by Dr M N Rajeevan , Secretary MoES, Chief Guest
10:25 - 10:30	Vote of Thanks, Sulagna Chattopadhyay , Convenor, SaGHAA IV, 2017
10.30 – 11.00	INTERACTION AND TEA BREAK

**Theme 1: Climate Change Current assessment, International/
Indian response and policies**

SESSION - I	Synergy between Himalaya-Arctic-Antarctic
TIMINGS	11:00 to 12:45 hours
CHAIRS	Dr Shailesh Nayak, Distinguished Scientist & Fmr Secretary, MoES; Dr K J Ramesh, DGM, IMD
KEYNOTE ADDRESS 11:00 - 11:15	Dr M Ravichandran, Director, NCAOR <i>Present and Future directions of Polar research by India</i>
11:15 - 11:30	Dr I M Bahuguna, Scientist G, SAC, Ahmedabad <i>Observing Himalayan and Polar Cryosphere through Indian satellites</i>
11:30 - 11:45	Dr E N Rajagopal, Director, NCMRWF <i>Polar Sea-Ice Simulation with a Coupled Model at NCMRWF</i>
11:45 - 12:00	Prof R Ramesh, Senior Professor in School of Earth and Planetary Sciences, NISER, Bhubaneswar, <i>Identifying meltwater signatures in Polar Regions using oxygen isotopes</i>

12:00 - 12:15	Dr Nalan Koc , Director, Norwegian Polar Institute, Tromso <i>Changing Arctic sea-ice regime: regional and global consequences</i>
12:15 - 12:30	Dr Parmanand Sharma , Scientist, NCAOR <i>Glacier response to climate in Arctic and Himalaya during twenty first century: a case study from Svalbard, Arctic and Chandra basin, Himalaya</i>
12:30 - 12:45	Dr Rasik Ravindra , Fmr Chair Panikkar Professor, MoES and Chairman Organising Committee, SaGHAA 2017 <i>Polar Regions and the Climate Change scenario</i>

OUTREACH & CAPACITY BUILDING: Students Rapid Shots Session/ Career Opportunities

TIMINGS	12:45 to 14:15 hours
MENTORS 12:45 - 13:10	Prof Ashutosh Sharma, Prof Trilochan Mohapatra, Prof N C Pant , Geology Deptt., Delhi University

13:10 - 13:20	Dr Sarfaraz Alam , Asso Prof, BHU, Varanasi
13:20 - 14:15	RAPID SHOTS Co-ordinator: Dr Shridhar Jawak Participants: Amir Khan, Rupendra Singh, Neelu Singh, Virendra Bahadur Singh, Ankit Pramanik, Prashant Pandit, Saurav Chatterjee, Sathiyaseelan R, Nikhil Parikh, Padma Ladon & Seema Rani
LUNCH 14:15 to 15:00 hours	
Theme 2: Climate Change and Health of Himalayan Glaciers	
SESSION II	Climate Sciences
TIMINGS	15:00 to 16:45 hours
CHAIRS	Dr Rajeev Mehajan , Head & Advisor - EAS Division, SERB, Dr Gopal Iyengar , Advisor, MoES

KEYNOTE ADDRESS 15:00 -15:15	Dr R Krishnan, Centre for Climate Change Research, IITM <i>Understanding non-monsoonal precipitation response in the Karakoram and Hindu Kush Himalayas to climate change</i>
15:15-15:30	Prof A P Dimri, SES, JNU <i>Indus: Climate and Water Budget</i>
15:30-15:45	Dr S C Kar, Advisor, MoES <i>Dynamic Downscaling of Climate over the Himalayas</i>
15:45-16:00	Dr V K Soni, Scientist, IMD <i>Meteorological and Ozone studies at Indian Stations in Antarctica</i>
16:00-16:15	Dr K Satheesan, Atmospheric Sciences Dept., Cochin University of S&T. <i>Variability of the vertical and horizontal winds in the Troposphere observed by the Movable Atmospheric Radar for Antarctica at Maitri</i>

16:15-16:30	Dr H S Negi, Scientist, SASE, DRDO <i>Spatio-temporal variations in land surface temperature (LST) using MODIS data in East Karakoram Himalaya</i>
TEA BREAK 16:30 to 17:00 hours	
Theme 3: Himalayan Ecosystem and Biodiversity , Climate Change , Mitigation and Adaptation	
SESSION– III	
TIMINGS	17:00 to 17:40 hours
CHAIRS	Prof A L Ramanathan, SES, JNU and Dr Malti Goel, CEO, CCRS
KEYNOTE ADDRESS 17:00-17:10	Dr Nisha Mendiratta, Advisor and Associate Head, SPLICE, DST <i>Addressing S&T Capacity Building in Climate Change for the Indian Himalayan Region: DST's Initiatives</i>
17:10-17:20	Dr S K Nandi, Scientist, GB Pant NIHESD <i>Need for Reorienting Climate Change Debate in the Himalaya- Balancing the Approach</i>

17:20-17:30	Dr Sharat Dutta, Senior Geologist, GSI <i>Responses of Indian Summer Monsoon (ISM) dynamics and Late Quaternary fluvial development: Records from Yamuna River valley, NW-Himalaya</i>
17:30-17:40	Dr Susheela Negi Scientist, Ministry of Science and Technology, Government of India <i>Assessing Vulnerability and Risks due to Climate Change for the Indian Himalayan Region (IHR)</i>

Theme 4: Himalayan Ecosystem and Biodiversity

SESSION - IV	
TIMINGS	17:40 to 18:30 hours
CHAIRS	Dr B Meenakumari, Chairperson, NBA, Prof C R Babu, CEMDE, DES, DU
KEYNOTE ADDRESS 17:40 - 17:50	Dr A K Singh, DCWF, BHIMTAL, <i>Climate Smart Scientific approaches to Manage Himalayan Fishery and Aquaculture, India</i>

17:50-18:00	Dr A Arunachalam, Scientist, ICAR <i>Enabling Climate Resilient Agriculture in the Indian Himalayan Region</i>
18:00 - 18:10	Dr N Tuteja, Formerly at ICGEB, <i>Improvement of Crop Productivity Under Climate Change: Special Reference to Himalayan Region</i>
18:10 - 18:20	Dr S Sathyakumar, Scientist, Wildlife Institute of India <i>Assessing impacts of climate change on wild fauna and micro-flora of the Indian Himalayan Region</i>
18:20 -18:30	Dr Renoj Thayyen, Scientist, NIH, <i>Need for a Paradigm Shift in Research in Himalayas</i>

DINNER 19:00 ONWARDS

December 1, 2017

Theme 5: Climate Change and Dynamics of Himalayan Glaciers

SESSION V

TIMINGS

9:30 to 11:15 hours

CHAIRS	Dr M N Rajeevan , Secretary, MoES; Dr Ashwagosha Ganju , Director, SASE, DRDO.
KEYNOTE ADDRESS 9:30 - 9:45	Dr V M Tiwari , Director, NGRI <i>Mass variability over Himalayan glaciated region</i>
9:45 - 9:55	Prof A L Ramanathan , SES, JNU <i>Present health and dynamics of glaciers in the Arctic and the Himalayas</i>
9:55 - 10:05	Dr M R Bhutiyan , Director, DTRL <i>An overview of high altitude warming in the Himalayas: A study based on instrumental records and Land Surface Temperatures (LST) derived from Landsat-5TM and OLI data</i>
10:05- 10:15	Prof S A Romshoo , Head, Deptt. of Geology, Kashmir University, Srinagar, J&K. <i>Melting Third Pole: Driving Factors and the Consequence</i>
10:15-10:25	Dr Amit Dharwadkar , Director, Polar Division, GSI, Faridabad <i>The Himalayan Saga: Ladakh Chapter, GSI</i>

10:25 - 10:35	Prof. M. S. Nathawat Prof. of Geography & Director School of Sciences, IGNOU <i>Need of CODATA initiative to facilitate Geo-Spatial Data Sharing in HKH region to study the effect of climate change</i>
10:35 - 10:45	Dr S P Shukla, Director, GSI <i>Glacier melt water characteristics of Hamtah glacier, Lahaul & Spiti District, Himachal Pradesh, India</i>
10:45 - 10:55	Dr Ashit Kumar Swain, Senior Geologist, GSI, Sikkim <i>Glacier stress pattern as an indicator for climate change</i>
10:55 - 11:05	Dr Sujata Das, Scientist, DTRL, DRDO, <i>Exploring Landsat Images for Glacier Monitoring: an indicator of climate change occurrence in Himalaya</i>

TEA BREAK 11:05 TO 11:45

Theme 6: Geopolitics of Poles

SESSION – VI	
TIMINGS	11:45 to 13.45 hours
CHAIRS	<p>Dr P S Goel, Raja Ramanna Professor, NIAS, ISRO and Fmr Secretary, MoES;</p> <p>H E Nils Ragnar Kamsvag, Ambassador Royal Norwegian Embassy to India</p>
KEYNOTE ADDRESS 11:45 - 12:00	<p>Dr Bimal N Patel, Director & Professor, Gujarat National Law University</p> <p><i>A quest for international environmental law stability and certainty in the Arctic Waters: Is Antarctic Environmental Regime suitable and feasible?</i></p>
12:00 - 12:15	<p>Dr Walter Roest, Fmr Member, UN Commission on LCS.</p> <p><i>Geoscience Advances in the Arctic Ocean</i></p>
12:15 - 12:30	<p>Prof Uttam K Sinha, Research Fellow, IDSA</p> <p><i>Observing the Arctic: Visit to Svalbard</i></p>

12:30 - 12:45	Dr Ashwagosha Ganju, Director, SASE <i>Implications of Changing Climatic Pattern on the Geopolitical Situation of North Western Himalaya, India</i>
12:45 - 13:00	H E Nils Ragnar Kamsvag, Ambassador, Norwegian Embassy <i>Indo-Norwegian polar collaboration, amongst other things in the field of research and technology</i>
13:00 - 13:15	Prof Sanjay Chaturvedi, Deptt. of Political Science, Panjab University, Chandigarh <i>A Critical Geopolitics of Anthropocene and the Antarctic Climate Dilemma</i>
13:15 - 13:30	Dr Luther Rangreji, Director, L&T Division, MEA <i>India's efforts towards a National Law governing Antarctica: An International Legal Perspective</i>
13:30 - 13:40	Dr M Sudhakar, Director, CMLRE, Cochin <i>International Conservation Law--CCAMLR System of Governance in Southern Ocean</i>
13:40 - 13:45	Sulagna Chattopadhyay, President, LIGHTS <i>India on backfoot in science diplomacy?</i>

LUNCH 13:45 TO 14:30

Theme 7: Ocean Research

SESSION – VII

TIMINGS	14:30 to 15:45
CHAIRS	Dr S K Singh , Director, NIO, and Dr M A Atmanand , Fmr Director, NIOT
KEYNOTE ADDRESS 14:30- 14:45	Dr Sunil Kumar Singh , Director, NIO, Goa <i>Evolution of the Himalaya, Biogeochemistry of the Indian Ocean and Climate Change</i>
14:45 - 15:00	Dr S C Shenoi , Director, INCOIS & NIOT, <i>Climate Change Adaptation and Mitigation – Climate Change and the Oceans</i>

15:00 - 15:15	Dr S C Tripathy, Scientist, NCAOR <i>Role of Southern Ocean in global climate change: perspectives from Indian Southern Ocean Expeditions</i>
15:15 - 15:30	Dr Rajiv Nigam, Scientist, NIO <i>Foraminifera in marine sediments off west coast of india- A tool for paleoclimatic reconstructions</i>
15:30 - 15:45	Dr C N Ravishankar, Director, CIFT, <i>Adaptation to Climate Change: a Fishery Technology Perspective</i>
TEA BREAK 15:45 TO 16:15	
Theme 8: Arctic and Antarctic Science and Cold Response Technologies	
SESSION – VIII	Arctic Science and Technologies
TIMINGS	16:15 to 17:30
CHAIRS	Dr Nalan Koc, Director, Norwegian Polar Institute, Tromso and Dr R Ramesh, NISER, Bhubaneshwar

KEYNOTE ADDRESS 16:15 - 16:30	Dr M A Atmanand , Scientist and Fmr Director, NIOT, <i>Indian arctic multi-sensor mooring (IndARC) observatory</i>
16:30 - 16:40	Dr Manish Tiwari , Scientist, NCAOR, Goa <i>Possible Errors in Marine vs. Terrestrial Carbon Sequestration Budget for the Arctic Region</i>
16:40 - 16:50	Mr. Tonny Algrøy , Global Sales Manager Underwater Science, Simrad, Kongsberg Maritime <i>Recent advances in hydroacoustic technology for ecosystem monitoring</i>

16:50 - 17:00	Dr Arild Sundfjord , Scientist, Physical Oceanography, NPI <i>Coastal and regional circulation in Svalbard; cross-scale needs for data and numerical model tools</i>
17:00 - 17:10	Dr S Rajan , Coordinator, International Indian Ocean Expedition, INCOIS, Hyderabad <i>Let not that ice melt in Svalbard</i>
17:10 - 17:20	Dr Einar Vegsund , Tech Expert, Norway <i>Designing Polar Research Vessels: A Collaboration between industry, scientists and government</i>
17:20 - 17:30	Dr G A Ramadass , Scientist, NIOT, Chennai. <i>Underwater Technology for Polar Research</i>
SESSION – IX Antarctic Science	
TIMINGS	17:30 to 19:00
CHAIRS	Dr M Ravichandran , Director, NCAOR and Dr M Sudhakar , Director, CMLRE
KEYNOTE ADDRESS 17:30 - 17:45	Dr Thamban Meloth , Scientist, NCAOR <i>Exploring the dynamics and past climate of the coastal ice shelves and ice rises of Antarctica</i>