

Program of the Workshop

18-04-2019 (Day - 1)

8:30 - 9:00	Registration		
9:00 - 9:05	Welcome - R. P. Singh		
Plenary session: Himalayan Tectonics and Earthquakes [Auditorium]			
Chair - R. P. Singh, Co-Chair - Malay Mukul			
Time	Paper Title	Presenting Author	Affiliation
9:05 – 9:35	Tectonics of the Himalaya an overview	V. C. Thakur	WIHG Dehradun
9:35 – 9:55	36 th International Geological Congress	V.P. Dimri	CSIR-NGRI Hyderabad
9:55 – 10:20	The medieval cluster of great earthquakes - Implications for the earthquake hazard of the central Himalaya	C. P. Rajendran	JNCASR Bangalore
10:20 – 10:40	Earthquake hazard in the Himalaya: Lessons learnt from recent earthquakes	Supriyo Mitra	IISER Kolkata
10:40 – 11:00	Vulnerability of Buildings in the Himalayan and Surrounding Regions - Are we prepared for the Big one?	Durgesh C. Rai	IIT Kanpur
11:00 – 11:30 Tea Break & Socializing			
Chair - C. P. Rajendran, Co-Chair - D. C. Rai [Auditorium]			
11:30 – 11:50	Seismological Network in the Himalayan Region: Achievements and Future Plans	G. Suresh	MoES Delhi
11:50 – 12:10	Kinematics of Himalayan neotectonics	Malay Mukul	IIT Bombay
12:10 – 12:30	Geodetic evidence of strong seismic coupling underneath Garhwal-Kumaun region, NW Himalaya	Vineet Gahalaut	CSIR-NGRI Hyderabad
12:30 – 13:00	Speaker Introduction – R. P. Singh Popular Talk – “Playing With Water & Water Bodies: For Life & For Business”	Vinod Tare	IIT Kanpur
13:00 – 14:00 Working Lunch			
Session – 1: Applications of Satellite Remote sensing in Himalayan Region [Auditorium]			
Chair - J. S. Parihar, Co-Chair - D. P. Shukla			
14:00 – 14:20	Earth Observation (EO) program of ISRO	Prakash Chauhan	IIRS Dehradun



C2E2 Himalaya



14:20 – 14:40	Spatio-temporal patterns of mass changes in Himalayan Glaciated Region from EOF analyses of GRACE data	V. M. Tiwari	CSIR-NGRI Hyderabad
14:40 – 15:00	The investigation of Indian-Himalaya ground water Aquifer depletion by space geodesy and its geological/hydrological contexts	J. Kim	University of Seoul, South Korea
15:00 – 15:20	Unmanned Aircraft System (UAS) Based Radars for Measurements of Snow and Ice in Himalayas	S. Prasad Gogineni	University of Alabama, USA
15:20 – 16:00 Tea Break, Socializing & Movie display			
Kesar Chand - Movie Title: Disaster Risk Reduction in the Indian Himalaya: Filming a Pathway to Developing Enhanced Resilience?			
16:00	Seating in the auditorium for workshop		
16:15	Workshop Opening		
	Lamp Lightening		
	Welcome and about the C2E2Himalaya - R.P. Singh		
	Welcome address – Director IIT Mandi		
	Welcome address – Chris McEntee, CEO and Executive Director, AGU		
	Inaugural address - M. Rajeevan, Secretary MoES		
	Release of Abstract Book		
17:45 - 18:00	Photograph of the Event		
18:00 - 18:30	Keynote Lecture - Akhilesh Gupta, Advisor, Climate Change (SPLICE) - "Climate Change Impact on Extreme Events"		
18:30 - 19:00	Keynote Lecture - Roger Bilham, University of Colorado Boulder - "Future great earthquakes in the Himalaya"		
19:00 - 19:05	Vote of Thanks - Dericks P. Shukla		
20:30 – 22:30 Social Dinner (Guest House)			

19-04-2019 (Day - 2)

Panel Discussion: "Are we prepared for the Big one" [Auditorium]			
9:30 - 11:00	Panelists		Vineet Gahalauat
			D. C. Rana
			C. P. Rajendran
			Malay Mukul
			Supriya Mitra
			D. C. Rai
			Moderator - R. P. Singh
11:00 - 11:30 Tea Break & Socializing			
Session - 2: Disaster Risk Reduction and Climate Change Adaption inter-linkages (Sponsored by NDMA)			
Parallel Session - 1: Earthquake		Venue: Hall A	
Chair - Vineet Gahalauat, Co-Chair - D. C. Rana			
11:30 - 11:45	Paleo seismological study in the Himalayan region and its importance	R. Jayangonda Perumal	WIHG Dehradun
11:45 - 12:00	Significant Precursory Signatures in Different Geophysical Parameters Related to MW 7.8 Gorkha Nepal Earthquake of April 25, 2015	Naresh Kumar	WIHG Dehradun
12:00 - 12:15	Earthquake Early Warning System for Northern India: A Review	Kamal	IIT Roorkee
12:15 - 12:30	Strain Budget of the Northwest Himalaya Using GPS Measurements	Rajeev K Yadav	ISR Gandhinagar
12:30 - 12:35	Hydrological Load induced Seasonal Deformation and Earthquake Modulation Along the Main Himalayan Thrust	Batakrushna Senapati	NIT Rourkela
12:35 - 12:40	Oblique Convergence, Strain Partitioning and Associated Geodynamic Complexities in NW and NE Himalaya	Dibyashakti Panda	NIT Rourkela
12:40 - 12:45	A Low-Powered Earthquake Monitoring and Warning System	Praveen Kumar	IIT Mandi
12:45 - 12:50	Analysis of Combined Seismic Catalog in NW Himalaya: Mapping of b-Value and investigating the Anomalous Quiescence-Activation Between two Strong Earthquakes	Vivek G Babu	WIHG Dehradun
Parallel Session - 2: Air Pollution		Venue: Hall B	
Chair - Abhay K Singh , Co-Chair - Sachchidanand Singh			

11:30 - 11:45	Estimates of Black Carbon (BC) Aerosol Transport Over Hindu Kush Himalayan Sites: Validation, Sources, and Implications on Glacier Runoff	Shubha Verma	IIT Kharagpur
11:45 - 12:00	Dust Storm Characteristics Over Indo – Gangetic Basin and their Climatic Implications	Abhay Kumar Singh	BHU Varanasi
12:00 - 12:15	Impact of Aerosol-Radiation interaction on Climate in Indian Himalayas	Raj Paul Guleria	Dept. of Higher Education, H.P.
12:15 - 12:30	Aerosol Climate forcing Agents in the Indo-Gangetic Plain: Impacts of Regional Biomass Burning Emissions and Atmospheric Transport	Sayantana Sarkar	IISER Kolkata
12:30 - 12:45	Early 21st Century Glacier Elevation and Mass Change Patterns in the Himalaya-Karakoram	Saurabh Vijay	DTU Space, Denmark
12:45 - 12:50	Assessment of Ambient Air Quality in the Ecologically Sensitive Tirthan Valley of the Great Himalayan National Park, India	Abhay Sharma	GPNIHESD H.P.
12:50 - 12:55	Tracing Back Carbon Aerosols: Source Characterization Using Long Term Observations of EC, EBC, OC and CO From Aries, Nainital, A High Altitude Site in the Central Himalayas	Priyanka Srivastava	ARIES Nainital
12:55 - 13:00	Sources, Aerosols Chemical Composition, and their Radiative Effects Over Hindu Kush-Himalayan (HKH) Region	Mukul Kumar	IIT Kharagpur
13:00 - 14:00 Working Lunch			
Session - 3: Disaster Risk Reduction and Climate Change Adaption inter-linkages (Sponsored by NDMA)			
Parallel Session - 1: Extreme Events and Landslide		Venue: Hall A	
Chair - R. J. Perumal, Co-Chair - Ashok K. Keshari			
14:00 - 14:15	Mathematical Modelling of Snow Avalanches in Himalayan Region	Ashok K Keshari	IIT Delhi
14:15 - 14:30	The Response of Himalayan Glaciers to Climate Variability and Climatic Change	Pankaj Kumar	IISER Bhopal
14:30 - 14:45	Geomorphic and Climatic Affinity of Holocene Mega-Floods in the Western Himalaya, India	Shubhra Sharma	IISER Mohali
14:45 - 15:00	Interaction Between Baroclinic Cool-Dry Trough and Barotropic Warm-Moist Lowpressure Field Caused Disastrous Rains Over Subtropical Himalayan Kedarnath Range (India) on 16-17 June 2013	Ashwini Ranade	NIH Roorkee
15:00 - 15:15	Rainfall in Sikkim - A Critical Analysis	Chandrashekhar Bhuiyan	SMIT Sikkim
15:15 - 15:30	Spatially Distributed Ice Thickness Modelling using Satellite Remote Sensing inputs - A Study on Glaciers of Teesta River Basin, Eastern Indian Himalayas	Raaj Ramashekar	IIT Bombay
15:30 - 15:45	Performance Analysis of IMD Rainfall Gridded Data and High-Resolution Satellite Estimates for Monitoring Extreme Events Over Northwest Himalayas	Sarita Azad	IIT Mandi

15:45 - 16:00	A Sensitivity Study on Medium Range forecast of Extreme Severe Cyclonic Storm Hudhud Using WRF Model	Kuvar Satya Singh	MITS andhra Pradesh
Parallel Session - 2: Air Pollution, Neotectonics, Landslide		Venue: Hall B	
Chair - Shubha Verma, Co-Chair - K. V. Uday			
14:00 - 14:15	Indigenous measures for Landslide monitoring and mitigation	K V Uday	IIT Mandi
14:15 - 14:30	Effect of Rainfall Patterns on the infiltration and Groundwater Responses and its Consequence on the Rainfall-Induced Landslide	Arindam Dey	IIT Guwahati
14:30 - 14:45	Low-cost landslide monitoring system and associated machine learning	Varun Dutt	IIT Mandi
14:45 - 14:50	Water Soluble Ionic Species in Atmospheric Aerosols over Dhauladhar Region of North-Western Himalaya	Deepika Kaushal	Central University H.P.
14:50 - 14:55	Particulate-Bound Non-Polar Organic Species over Dhauladhar Region of North-Western Himalaya: Variations in Sources and Processes	Sarita Bamotra	Central University H.P.
14:55 - 15:00	Absorbing Aerosol Characterization over A High Altitude Sub-Himalayan Station in North Eastern Region of India	Arundhati Kundu	NESAC, Umiam
15:00 - 15:05	Estimation of Efflux of CO ₂ From The Tributaries of Ganga River	Shaheen Akhtar	NIT Rourkela
15:05 - 15:10	Simulation of Future Evolution of Glaciers in the Chandra Basin, Western Indian Himalayas	Prateek Gantayat	IIT Bombay
15:10 - 15:15	Dynamics of the Upper Mantle Beneath the Northwest Himalaya and Ladakh-Karakoram Zone Based on SKS Splitting Method	Arpita Paul	WIHG Dehradun
15:15 - 15:20	Records on Geodynamic Evolution of Himalaya from a Review of Detrital Thermochronological Studies in the Himalayan foreland Basin Sediments	Kanu Priya	Panjab University, Chandigarh
15:20 - 15:25	Shortening and Uplift Rate of Surin Mastgarh Anticline, Jammu and Kashmir, India: Evidences From Field, Tectonic Geomorphology and Stream Length index	Aravind A	WIHG Dehradun
15:25 - 15:30	Micromorphology and Clay Mineralogy of the Early Oligocene Fossil Soils from Himalaya: Implications for Origin and intensification of Monsoonal Conditions over the Indian Sub-Continent	Neha Upreti	Delhi University, Delhi
15:30 - 15:35	Landslide Susceptibility Mapping for the Hilly Township of Mussoorie and its Surroundings, Uttarakhand Himalaya	Pratap Ram	WIHG Dehradun
15:35 - 15:40	Litho-Tectonic Implications of Landslides: Case Study of Yamuna Valley, Northwest Himalaya	Imlirenla Jamir	Nagaland University
15:40 - 15:45	Regional Slope instability Regime, Satluj River Valley, Northwest Himalaya	Vipin Kumar	WIHG Dehradun
15:45 - 15:50	A Case Study on Application of GIS Based Analytical Hierarchy Process (AHP) for Landslide Hazard Zonation in Urban Agglomerations of Gangtok, the Capital City of Sikkim	Nikita Lahiri	NESAC, Umiam



15:50 - 15:55	Impact of Cyclone Hudhud Over Atmospheric and Meteorological Properties Close to Himalaya	Akshansha Chauhan	Sharda University
15:55 - 16:00	A GIS Based Comparative Study of Landslide Susceptibility using Certainty Factor Model and Artificial Neural Network of Rishikesh-Mana Route, India	Anitha Revi	DTRL (DRDO) Delhi
16:00 - 16:05	Flood Modelling through Remote Sensing and GIS over Pong Dam, Kangra District, Himachal Pradesh	Vasudha Chaturvedi	IIRS Dehradun
16:00 – 16:30 Tea Break & Socializing			
16:30 – 18:30 Poster Session			
20:30 – 22:30 Social Dinner			

20-04-2019 (Day - 3)

Panel Discussion: "Retreat of Himalayan Glaciers - Is It Real?" [Auditorium]			
9:30 - 11:00	Panelists		Ashwagosh Ganju
			Siva Prasad Gogineni
			Manfred F. Buchroithner
			S.S.Randhawa
			Rajesh Kumar
			Moderator - R. P. Singh
11:00 - 11:30 Tea Break & Socializing			
Session - 4: Climate Change and Glacier Studies			
Parallel Session - 1: Climate Change			Venue: Hall A
Chair - S. Prasad Gogineni, Co-Chair - Anil D. Shukla			
11:30 - 11:45	Himalaya- A Global Climate Change Hot Spot	Govind Ballabh Pant	IITM Pune
11:45 - 12:00	White Roofing – A Potent Mitigation Strategy to Combat Climate Change in the Himalayan Mountains	M R Bhutiyani	DTRL Delhi
12:00 - 12:15	Geomatics Applications in Gathering information on Alpine Vegetation to Support Climate Change Studies- A Case Study of Uttarkhand	Jai Singh Parihar	SAC Ahmedabad
12:15 - 12:30	Methodologies for Assessment of Urban Micro-Climate	Hemant Bhagwan Bherwani	NEERI Nagpur
12:30 - 12:45	Tracking Back the High Resolution Multidecadal Climate Changes in the Indian Himalaya: Role of Winter Westerlies	Jaishri Sanwal	JNCASR Bangalore
12:45 - 13:00	Regional Coupled Ocean-Atmosphere Model (RSM-ROMS) for Climate Change Studies over Himalayas: Preliminary Results	Akhilesh Mishra	Amity University, Rajasthan
Parallel Session - 2: Glacier Studies			Venue: Hall B
Chair -Ashwagosh Ganju , Co-Chair - S. S. Randhawa			
11:30 - 11:45	The Famous Halji Glof, Nepal: State of Research, and Conjectures, Particularities and Generalizing Findings	Manfred F. Buchroithner	TU Dresden, Germany
11:45 - 12:00	Geomorphological Processes Responsible for Glacial Lake Damming Preceding Burst in three Different Regions of Indian Himalaya. A Comparative Study and Mitigation Strategy	Ashwagosh Ganju	SASE (DRDO), Chandigarh
12:00 - 12:15	Applications of Ground Penetrating Radar for Cryospheric Studies	Kamal Kant Singh	SASE (DRDO), Chandigarh
12:15 - 12:30	Application of Geospatial Techniques for Snow Cover Mapping and Snow Load Estimation in Western Himalaya	Hemendra Singh Gusain	SASE (DRDO), Chandigarh

12:30 - 12:45	Augmentation of Snowdrift for Water Resource and Avalanche Hazard Management in Himalayan passes	Ganesh Kumar	SASE (DRDO), Pune
12:45 - 12:50	Dynamics of Bhagirath Kharak Glacier, Central Himalaya in Relation to Changing Facies	Purushottam Garg	WIHG Dehradun
12:50 - 12:55	Airborne Hyper-Spectral Sensor (AVIRIS- NG) Data Analysis for Snow Surface Characteristics Case Study for a Part of North-West Himalaya	Vimanyu Sharma	SASE (DRDO), Chandigarh
12:55 - 13:00	High Altitude Glacier Mapping in Eastern Himalayan Cryosphere using Remote Sensing Data	Jyoti Sharma	GBPNIHESD
13:00 - 14:00 Working Lunch			
Session - 5: Climate Change and Glacier Studies			
Parallel Session - 1: Climate Change		Venue: Hall A	
Chair - G. B. Pant, Co-Chair - Varun Dutt			
14:00 - 14:15	Adaptation Strategies for Groundwater Sustainability in the face of Climate Change in India	Ratan C. Jain	MoWR Gujrat
14:15 - 14:30	Climate Change Vulnerability Assessment in the Indian Himalayan Region Based on a Common Methodological Framework	Shyamasree Dasgupta	IIT Mandi
14:30 - 14:45	Role of Krishi Vigyan Kendras in Combating Health Problems Associated with Climate Change	Archana Singh	Krishi Vigyan Kendra, Gonda
14:45 - 15:00	Impact of Climate Change on Horticultural Crops	Arun Kumar Singh	NDUAT, Ayodhya
15:00 - 15:05	Vulnerability Assessment of Farming Community of Kullu District to Climate Change	Pratima Vaidya	MMU Ambala
15:05 - 15:10	Climate Change and its Impact in Western Himalaya (Naradu Valley)	Shruti Singh	Sharda University, Greater Noida
15:10 - 15:15	Paleoenvironmental Shifts Spanning the Last ~6000 Years and Recent Anthropogenic Controls inferred from a High-Altitude Temperate Lake: Anchar Lake, NW Himalaya	Aasif Mohmad Lone	Anna University, Chennai
15:15 - 15:20	Inter-Annual Climate Variability based on High Resolution Stable Isotope ($\delta^{18}O$ & $\delta^{13}C$) Records of Tridacna Maxima Bivalves, Minicoy Island, Lakshadweep Archipelago	Fousiya Aa	Anna University, Chennai
15:20 - 15:25	Seasonal and Altitudinal Variation of Snow Cover Area (SCA) over Parvati Basin, India using MODIS Data During 2001-2017	Deepak Kumar	Kurukshtra University, Kurukshtra
15:25 - 15:30	Effect of Climate Change on Himalayan Glaciers	Debmita Bandyopadhyay	IIT Bombay
15:30 - 15:35	A Study on Hydro-Climatic Variability of Himalayan Glaciers using a High Resolution Dynamically Coupled Glacier-Climate Regional Model	Aaquib Javed	IISER Bhopal
Parallel Session - 2: Glacier Studies		Venue: Hall B	

Chair - Manfred F. Buchroithner, Co-Chair - Rajesh Kumar			
14:00 - 14:15	Mass and Energy Balance of Naradu Glacier, Western Himalaya, India	Rajesh Kumar	Sharda University, Greater Noida
14:15 - 14:30	Response of Glaciers Since Last 20 Ka in the Transitional Climate Zone of the Southern Zaskar Ranges (Nw Himalaya)	Shubhra Sharma	IISER Mohali
14:30 - 14:45	Glacial Retreat: Climate Change is Responsible - Geomorphology Hastens the Process	Reet Kamal Tiwari	IIT Ropar
14:45 - 15:00	Reconstruction of Palaeoglaciation and Equilibrium Line Altitude (ELA) Changes in the Suru River Basin, Western Himalaya	Vinit Kumar	WIHG Dehradun
15:00 - 15:15	Susceptible River Reaches and Sediment Transport During an Extreme Hydrological Event in the Mountainous Basin	Rahul Devrani	WIHG Dehradun
15:15 - 15:20	Spatiotemporal Analysis of Snow Cover Variation over Western Himalayan Basins using Improved Modis Snow Cover Area Maps	Smarika Kulshreshtha	IIT Bombay
15:20 - 15:25	Glacial Lakes and Glacial Lakes Outburst Floods in Himachal Pradesh India using Remote Sensing and GIS	Gopinadh Rongali	DTU Delhi
15:25 - 15:30	Glacier Mass Balance Estimation in Baspa Basin using Improved Accumulation Area Ratio Method	Arya A R	IISc Bangalore
15:30 - 15:35	Study of Himalayan Cryosphere Elements for Understanding the Dynamics of Chipa Glacier using Remote Sensing Technology	Manoj Kumar Patley	GBPNIHESD
15:35 - 15:40	Detecting the Permafrost Distribution with the Help of Remote Sensing and GIS in the North-West Himalaya	Md. Ataullah Raza Khan	IIRS Dehradun
15:40 - 15:45	De-Sustainability in Himalayan Cryosphere: A Comparative Study of Exploitation of Cryospheric Service Functions in the Past and the Present	Shivika Aggrawal	ABES
16:00 - 16:30 High Tea			
16:30 - 17:30 Poster Session			
17:30 - 18:00 Valedictory Session			