### International Workshop (Webinar)- "Assessment and Mitigation of Landslides in the Himalaya"

Chairperson: Dr Kalachand Sain, Director Convener: Dr Vikram Gupta, Scientist 'F'

# Day 1 - 28<sup>th</sup> October 2020

Inaugural Programme: Chief Guest Prof. T.N. Singh, Vice Chancellor, MGKV, Varanasi, India				
09:30 - 09:40	Welcome address - Dr Kalachand Sain, Director WIHG			
09:40 - 09:50	About the Workshop and Introduction of the Chief Guest - Dr Vikram Gupta			
09:50 - 10:35	Inaugural Address - Prof. T.N. Singh			
10:35 - 10:40	Vote of Thanks – Ms Neha			
10:40- 11:00	BRAEK			
Technical Session:1 Landslide Monitoring and Early Warning				
11:00 - 11:30	Dr Maneesha V. Ramesh Amrita Univesity, Kerala	Real Time Monitoring and Early Warning of Landslides: Challenges and Technologies		
11:30 - 12:00	Dr PK Champati Ray IIRS, ISRO, Dehradun	A framework for landslide early detection (LED) and early warning system (LEWS) using space and ground-based inputs		
12:00 - 12:30	Dr D.P. Kanungo, CSIR-CBRI, Roorkee	Landslide Early Warning in Indian Context		
12:30 - 13:00	Prof. Neelima Satyam IIT Indore	Landslide forecasting and real time monitoring		
13:00 - 14:00	BREAK			
Technical Session: 2 Landslide Hazard Assessment				
14:00 - 14:30	Dr Lene Kristensen NVE - Norway	Rockslide monitoring and early warning in Norway		
14:30 - 15:00	Dr Reginald Hermanns, NGU - Norway	Mapping, hazard and consequence analyses for unstable rock slopes in Norway: experience from 15 years of systematic mapping		
15:00 - 15:30	Prof. HB Havenith, Liege University, Belgium	An overview of >20y work on geohazard and risk assessment in Central Asia (Tien Shan-Pamir).		
15:30 - 16:00	Prof. Krishna Kanta Panthi NTNU - Norway	2014 Jure Landslide in Nepal - a disaster of extreme tragedy		
16:00 - 16-15	BREAK			
16:15 - 16:45	Prof. Cees van Westen Netherland	On the importance of generating event-based landslide inventories		
16:45 - 17:15	Dr Sheena Ramkumar Durham Uni UK	Developing an Integrated Framework for Co-seismic Landslide Hazard Mitigation		
17:15 - 17:45	Dr S. L. Chattoraj IIRS - Dehradun	Application of different high-resolution DEMs in numerical simulation and modelling of selected landslides in Uttarakhand Himalaya		
17:45 - 18:15	Dr. Mahdi Shabanimashcool, NGI-Norway	Design of stabilization measures for a large rock slope in Bhutan Himalaya		

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#### Day 2 - 29<sup>th</sup> October 2020

Technical Session 3: Large Scale Mapping			
Time	Speaker	Title of Presentation	
09:45 - 10:15	Dr Debapriya Dutta Special Invitee - DST	Spatial Disaster Risk Reduction: An initiative of DST- NGP	
10:15 - 10:45	Dr. Saibal Ghosh GSI, Kolkata	Creating a national-level landslide inventory and susceptibility database for India - an endeavour by Geological Survey of India	
10:45 - 11:15	Dr Ranjan Kumar Dahal, Tribhuvan University, Nepal	Large-scale landslides in Himalaya and their consequences in road construction	
11:15 - 11:45	Dr Kishor Kumar Ex-CSIR-CRRI, N. Delhi	Himalayan Peculiarities and landslides connected with Highway Infrastructure- Special Reference to Uttarakhand	
11:45 - 12:00			
12:00 - 12:30	Dr YP Sundriyal HNBGU- Srinagar	Large scale mapping and Kinematic analysis of vulnerable slopes along Sonprayag to Kedarnath, Garhwal Central Himalaya, India	
12:30 - 13:00	Dr S. Sarkar CSIR-CBRI, Roorkee	Engineering Geological Investigation for Landslide Hazard Assessment Along Rudraprayag-Sonprayag Road Sector in the Mandakini Valley	
13:00 - 13:30	Dr R.S. Tandon, GEHU, Dehradun	Slope Stability investigations along the Mansa Devi hill- bypass (MDHB) Road, Haridwar, Uttarakhand, India	
13:30 - 14:30	BR	REAK	
Technical Session 4: Special Session on the Sikkim Himalaya			
14:30 - 14:50 (20 Minute)	Dr Ivanna Penna, NGU - Norway	Air blasts caused by rock slope failures, what did we learn from the Yumthang 2015 rock avalanche?	
14:50 - 15:10 (20 Min)	Dr John Dehls, NGU - Norway	InSAR for landslide mapping: Experiences from Norway and Sikkim	
15:10 - 15:30 (20 Min)	Dr Rajinder Bhasin NGI - Norway	Back analysis of shear strength parameters of a large rock slide in Sikkim Himalaya	
15:30 - 15:50 (20 Min)	Dr Vikram Gupta WIHG - Dehradun	Geology and geomorphological control of landslides in the Sikkim Himalaya	
15:50 - 16:10 (20 Min)	Prof. A. Sengupta IIT - Kharagpur	Landslides in Sikkim Himalaya - Study at IIT Kharagpur	
16:10 - 16:30 (20 Min)	Dr Sudesh Kr Wadhawan Amrita University, Kerala	Basin-wide Approach to Landslide Hazards Assessment and Deployment of Early Warning System in Sub-Basins of River Rora Chu in Part of Gangtok Region, East Sikkim Himalaya	
16:30-16:40	BRI	EAK	
Technical Sessi	on 5: Education and Trai	ning on Landslide Hazards	
16:40 - 16:50	Dr Piyoush Rautela USDMA, Dehradun	Practical constrains in the implementation of the research output	
16:50 - 17:00	Prof. Surya Parkash NIDM, New Delhi	Capacity enhancement on landslide risk reduction and resilience	
17:00 - 17:10	Prof. R, Baskar GJU, Hisar	Landslide Education	

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17:10 - 17:20	Prof. A.D. Ahluwalia, PU Chandigarh	Inculcating landslide education among schools and parents: a sacred geoethical duty	
17:20 - 17-30	Ŭ	EAK	
17.20 - 17-30	DREAR		
Closing Ceremony: Chief Guest Dr Rajendra Dobhal - DG, UCOST, Dehradun (India)			
17:30 - 17:40	Welcome and Remarks - Dr Kalachand Sain, Director, WIHG		
17:40 - 17:50	Summing up the Workshop and Introduction to the Chief Guest - Vikram Gupta		
17:50 - 18:30	Address by the Chief Guest of the Function		
18:30 - 18:40	Vote of Thanks - Dr Vinit Kumar		