## 3<sup>rd</sup> International Webinar On

# **NATURAL HAZARDS AND MANAGEMENT**

## 22-23 November, 2022

#### Organized by





Institute of Geology, Karelian Research Centre, Russian Academy of Sciences Petrozavodsk, Russia



### Patrons, Keynote Speakers and Conveners



Dr. Dhan Singh Rawat Honorable Higher Education Minister, Uttarakhand, India



Prof. Mukesh Pandey Vice Chancellor, Bundelkhand University, Jhansi. India



Prof. Sergei Svetov Director, IGKRC, RAS, Petrozavodsk, Russia



Prof. H.B. Srivastava Vice Chancellor, Siddharth University, Kapilvastu, India



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Prof. V.A. Shekov IGKRC, RAS, Petrozavodsk, Russia



Prof. C.S. Dubey Vice Chancellor, K R Mangalam University, Gurgaon, India



Prof. Dhruvsen Singh Department of Geology, University of Lucknow,



Prof. Y.P. Sundriyal Dept. of Geology, HNB Garhwal University,



Prof. D.V. Jhirov Geological Inst. of the Kola Scientific Center, RAS, Apatity, Russia



Dr. O.D. Mokrushina Geological Inst. of the Kola Scientific Center, RAS, Apatity, Russia



Prof. Ashok K. Singh Deptt. Physics, Dean, Faculty of Engg. & Technology, Lucknow University, India



Dr. Lokesh K. Sinha Ex-Director, DTRL, DRDO, Delhi, India



Dr. A.A. Lebedev IGKRC, RAS, Petrozavodsk, Russia



Prof. Nageshwar Dubey Dept. of Geology, Addis Ababa Sci. & Tech. University, Ethiopia



Prof. R. Baskar School of Sciences, IGNOU, New Delhi, India



Dr. Ashalata Singh Department of Botany, BHU, Varanasi, India



Prof. Suresh C. Bhatt Geology, BU Jhansi, India



Dr. Shantanu Sarkar, CSIR- CBRI, Roorkee, India



Dr. A.K. Singh NRDMS Division, DST, New Delhi, India



Dr. Sarada P. Pradhan, Dept. of Earth Sciences, IIT Roorkee, India



Prof. V. Srivastava, Geology, BHU, India



Dr. A. K. Biyani Dehradun, India



Prof. Sandeep Singh Department of Earth Sciences, IIT Roorkee, Uttarakhand, India



Dr. Girish C. Kothyari, University of Petroleum and Energy Studies, Dehradun, India



Dr. Droupti Yadav School of Science, CSJM University, Kanpur, India



Dr. Rahul Verma, Botswana, South Africa



Dr. Mohit Kumar Puniya Scientist-C, National Geotechnical Facility, Survey of India, Dehradun, India



Piyush Kumar Singh Department of Earth Sciences, IIT Roorkee, Uttarakhand, India

#### Conveners:



Prof. Vinod K. Singh Convener (Webinar), India



Prof. Ram Autar Singh Convener (Webinar), India

Zoom Conference Online ID: 834 9151 4930 and Password: 081638; Zoom LINK:

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Please submit your full paper as early as possible. We shall publish book in the month of March 2023.

## **Zoom Conference LINK for online presentation:**

#### 22 November and 23 November, 2022

To be connected to the Zoom conference for the above both days:

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**Call for Manuscripts** – Interested contributors are requested to submit their full-length papers of maximum 10 A4 pages (including figures & tables) with 1 inch margin all sides, Times New Roman 12, through e-mail (**vinodksingh@bujhansi.ac.in** and **singhdr.ramautar@gmail.com**) latest by 15<sup>th</sup> March, 2023. We aim the publication of full papers for the proceedings of the Webinar after peer review.

**Presentation of papers:** Presentations should be done online. Every participant will be given 10 minutes time for presentation and 5 minutes for discussion.

Kindly make your registration on google form with following link for the 3<sup>rd</sup> International Webinar on "Natural Hazards and Management"

https://forms.gle/3ZQUBtxhKZEKvibb8

## TIME SCHEDULE

	Day – 1: 22 November 2022					
Inaugural Session						
S. No.	Indian (Moscow) Standard Time	Name and address	Topic			
1	12:30 – 12:40 (10:00 –10:10)	Prof. Mukesh Pandey Vice Chancellor Bundelkhand University, Jhansi, India	Inaugural address to participants			
2	12:40 – 12:50 (10:10 - 10:20)	Prof. Sergei Svetov, Director, IG, KarRC, RAS, Petrozavodsk, Russia Prof. Vinod K. Singh, Geology Dept., Bundelkhand University, Jhansi, India	Highlights on MOU between Bundelkhand University, Jhansi, India and Institute of Geology, KRC, RAS, Petrozavodsk Russia			
3	12:50 – 13:10 (10:20-10:40)	Prof. T.N. Singh Director, IIT Patna, Bihar, India	Rock mass instability			
4	13:10 – 13:20 (10:40-10:50)	Dr. A.K. Singh NRDMS Division, DST, New Delhi, India	Disaster Risk Reduction: Role of Department of Science & Technology, Gov. India, New Delhi			
5	13:20 – 13:35 (10:50 –11:05)	Prof. C.S. Dubey Vice-Chancellor, K R Mangalam University, Gurgaon, Haryana, India	Natural Hazards and Tectonic Map of India			
6	13:35 – 13:50 (11:05 –11:20)	Prof. Dhruvsen Singh Department of Geology, Lucknow University, U.P., India	Impact of Climate change on Society			
7	13:50 – 13:55 (11:20-11:25)	Prof. R.A. Singh Principal, Govt. Degree College Gururabanj, Uttarakhand, India	Brief outline about the Scientific session of the Webinar and Vote of Thanks			

Day – 1: 22 November 2022 Scientific Session						
8	13:55 – 14:15 (11:25-11:45)	Prof. V. Shekov Institute of Geology, Karelian Research Centre, RAS, Petrozavodsk, Russia	Basics of safety in the operation of Mining and Industrial heritage in Karelia			
9	14:15 – 14:35 (11:45 -12:05)	Dr. A.A. Lebedev and I.A. Zueva Institute of Geology, Karelian Research Centre, RAS, Petrozavodsk, Russia	Quarry blasts - the main source of seismicity of Southeastern Fennoscandia			
10	14:35 – 14:55 (12:05 – 12:25)	Dr. Lokesh K. Sinha	Avalanches: Mitigation and Control			
11	14:55 – 15:10 (12:25 – 12:40)	Prof. Y.P. Sundriyal Department of Geology, HNB Garhwal University, Srinagar, Garhwal, India	Climatic induced Disasters with special reference to Uttarakhand Himalaya			
12	15:10 – 15:25 (12:40 -12:55)	Prof. R. Baskar School of Sciences, IGNOU, Maidan Garhi, New Delhi, India	Microbes and Climate Change			
13	15:25 – 15:40 (12:55 – 13:10)	Dr. Asha Lata Singh Department of Botany, Banaras Hindu University, Varanasi, India	Decolorization and Degradation of Reactive Yellow-145 azo dye with bacteria: Implication on environment and health hazard			
14	15:40 – 15:55 (13:10 – 13:25)	<b>Prof. S.C. Bhatt</b> and Prof. V.K. Singh, Department of Geology Bundelkhand University, Jhansi, India	Land/Soil Degradation in Bundelkhand region using GIS and RUSLE method			
15	15:55– 16:05 (13:25 – 13:35)	Dr. Sarada Prasad Pradhan  Department of Earth Sciences, IIT Roorkee, Roorkee, India	Investigation of a landslide in Uttarakhand Himalaya			
16	16:05– 16:15 (13:35 – 13:45)	<b>Piyush Kumar Singh</b> and Sarada P. Pradhan Department of Earth Sciences, IIT Roorkee, Roorkee, India	Influence of Geological Structures in Rock Slope Stability in a Road Cut Section along NH-09, Kumaun Himalaya, India			
17	16:15– 16:25 (13:45 – 13:55)	<b>Dr. A.K. Biyani</b> O.R. Trust for Geosciences, 180/3, Rajpur Road, Dehradun, India	Failure of Natural Disaster Prevention Mechanism in context of Uttarakhand			
18	16:25– 16:35 (13:55 – 14:05)	Tapiwa Frank Kwachara Ngoroyemoto Deptt. of Mining and Mineral Processing Engg., Manicaland State Univ. Applied Sci., Zimbabwe Dr. Rahul Verma Botswana International University of Science and Technology, Botswana, South Africa	Challenges and Opportunities in Monitoring Geohazards			
19	16:35– 16:40 (14:05 – 14:10)	Dr. Rahul Verma, N.B. Mamba & M. Bonni Botswana International University of Science and Technology, Botswana, South Africa	Prospects of Mine Development and Coal Production in Botswana			
20	16:40- 16:45 (14:10 - 14:15)	<b>Dr. Rahul Verma</b> and others  Botswana International University of Science and Technology, Botswana, South Africa	Slope stability analysis of High Susceptible Regions in Zimbabwe			
	Day – 2: 23 November 2022 Scientific Session					
21	12:30 – 12:45 (10:00 –10:15)	Prof. Ashok Kumar Singh Department of Physics, Dean, Faculty of Engg. & Tech., University of Lucknow, Lucknow, India	Space Weather and Climate Change			
22	12:45 – 13:00 (10:15 –10:30)	Dr. Shantanu Sarkar, Chief Scientist, CSIR-Central Building Research Institute, Roorkee, India	Slope Stability Assessment along Hill Roads			
23	13:00 – 13:15 (10:30 –10:45)	Dr. A.V. Mokrushin and O.D. Mokrushina Geological Institute of the Kola Scientific Center, RAS, Apatity, Russia	The hazardous exogenous geological processes in the Murmansk region (NW Russia)			
24	13:15 – 13:30 (10:45 –11:00)	<b>Prof. D.V. Zhirov and A.M. Zhirova</b> Geological Institute of the Kola Scientific Center, RAS, Apatity, Murmansk, Russia	Stress-Strain State – Seismicity in the 3D-model			

25	13:30 – 13:45 (11:00 -11:15)	Prof. Sandeep Singh Department of Earth Sciences, IIT Roorkee, Roorkee, India	Natural Hazards		
26	13:45 – 14:00 (11:15 –11:30)	Prof. Vaibhava Srivastava Department of Geology, Banaras Hindu University, Varanasi, India	Mass movements		
27	14:00 – 14:15 (11:30 –11:45)	Prof. Nageshwar Dubey  Department of Geology, Addis Ababa Science and Technology University, Ethiopia, NE Africa	Vertical discontinuities of thick successions in triggering the landslides of Blue Nile valley of Ethiopia		
28	14:15 – 14:25 (11:45 –11:55)	Dr. Harshita Joshi Department of Geology, LSMGPG College Pithoragarh, Uttarakhand, India	Landslide studies in National Highway-125, Pithoragarh District, Uttarakhand, India		
29	14:25 – 14:35 (11:55 –12:05)	Dr. Droupti Yadav School of Science C.S.J.M. University, Kanpur, India	Role of Society for Environmental Hazards and Disaster Management		
30	14:35 – 14:45 (12:05 –12:15)	Dr. Girish Chandra Kothyari University of Petroleum and Energy Studies, Dehradun, India	Assessment of active deformation in the surrounding regions of the 7th to 12th AD monuments in the Western Himalaya: A seismotectonic approach using PSInSAR		
31	14:45 – 14:53 (12:15 –12:23)	Dr. Mohit Kumar Puniya Scientist-C, National Geotechnical Facility, Survey of India, Dehradun, India	Geological investigation and mitigation of Josiyara Barrage seepage problem, Maneri Bhali Stage -2 (480MW), Uttarkashi- Uttarakhand		
32	14:53 – 15:01 (12:23 –12:31)	Anil Kumar Chaurasiya Remote Sensing Application Centre Lucknow, Department of Science and Technology, Government of Uttar Pradesh	Delineation of artificial recharge Structure and management for water scarcity problems in the plateau region of Uttar Pradesh using remote sensing, GIS, and Geophysical technique		
33	15:01 – 15:09 (12:55 –13:05)	Ravi Shankar Dubey Research Scholar, Department of Earth Sciences, IIT Roorkee	Evaluation of Aquifer Protective Capacity and Soil Corrosivity using Electrical Resistivity Method in Hard rock regions of Mauranipur, Uttar Pradesh, India		
34	15:09 – 15:18 (12:55 –13:05)	Deepak Pant LSM Government P.G.College Pithoragarh, 262502, Uttarakhand	Deformation and tectonics of the Photoksar region, Zanskar Tethys Himalaya, India		
35	15:18 – 15:30 (12:55 –13:05)	Dr. Rahul Verma and others Botswana International University of Science and Technology, Botswana, South Africa	i) Numerical modelling of rock mass behavior     ii) Determination of Factor of safety in Opencast Mines     iii) Evolution of Shear Strength Value from discontinuity analysis		
Day – 2: 23 November 2022					
26	15:20	Valedictory Session			
36	15:30 (13:00)	Prof. H.B. Srivastava Vice Chancellor, Siddharth University, Kapilvastu, Siddarth Nagar, India			
37	15:40 (13:10)	Concluding remarks, Vote of Thanks and End of Webinar  Prof. Vinod K. Singh, Coordinator, International Students Cell, Bundelkhand University, Jhansi, India			

#### **Conveners:**

## **Prof. Vinod K. Singh**

Coordinator, International Students Cell, Bundelkhand University, Jhansi, India, Mobile:+91-8787250071; +91-9415258237 (WhatsApp) vinodksingh@bujhansi.ac.in

## **Prof. Ram Autar Singh**

Principal, Govt. Degree College Gururabanj, Almora, Uttarakhand (INDIA) Mobile:+91-7408807750; +91-9412985991 singhdr.ramautar@gmail.com