



One Day Webinar on

## Glacial Lake Outburst Flood (GLOF): An Insight



**Organised by:** Centre of Excellence in Structural Engineering and Disaster Management (CESEDM), JUIT Waknaghat

**Date:** 29/01/2022 (Saturday)

**Time:** 11:00 AM – 1:00 PM

### **NO REGISTRATION FEE**

Registration Link: <https://forms.gle/4o5cL6SUMa6cukEo6>

Registration will be open until Friday, January 28, 2022, 9 pm. The Google Meet link for the Webinar will be shared after successful registration.

**Brief Overview of Glacial Lake Outburst Flood:** Glacial hazards relate to hazards associated with glaciers and glacial lakes in high mountain areas and their impacts downstream. The climatic change/variability in recent decades has made considerable impacts on the glacier life cycle in the Himalayan region. As a result, many big glaciers melted, forming a large number of glacial lakes. Due to an increase in the rate at which ice and snow melted, the accumulation of water in these lakes started increasing. Sudden discharge of large volumes of water with debris from these lakes potentially causes glacial lake outburst floods (GLOFs) in valleys downstream. Outbursts from glacier lakes have repeatedly caused the loss of human lives as well as severe damage to local infrastructure. Monitoring of the glacial lakes and extent of GLOF impact along the downstream has become necessary. As a number of hydroelectric projects in India are being planned in the Himalayan regions, it has become necessary for the project planners and designers to account for the GLOF also along with the design flood for deciding the spillway capacity of projects.

**Presenter: Narendra Kumar Yadav, Chief Engineer (Retd.), Uttarakhand Irrigation Department**

**About the Presenter:** Mr. Narendra Kumar Yadav retired as Chief Engineer from Uttarakhand Irrigation Department and Managing Director of Uttarakhand Project Development & Construction Corporation Limited. He completed B.E. in Mechanical Engineering in 1983 from the University of Roorkee (currently Indian Institute of Technology, Roorkee). After graduation, he worked at the Paper & Material Handling Plant of Larsen & Toubro Ltd. He joined the Irrigation Department in 1986. He has vast experience in the Hydro-mechanical and Hydro-structural works including Ground Water Exploration & Drilling Deep Tubewells in Bhabhar area; Operation and Management of State Tube Wells; and Design, Fabrication, and Erection of Hydro-mechanical equipment, gates, penstock, etc. Some of the notable projects completed under his supervision are Shiv Dhanush Bridge, Har-ki-Pauri,



Haridwar; Om Bridge, Haridwar; Closure works of Yamuna/Maneri Bhali Stage I & II Valley Projects; Design, Fabrication, and Erection of 4 m diameter Penstock of Vyasi Hydroelectric Project; and International Hydro-Turbine Laboratory, AHEC, IIT Roorkee. He has worked with IIT, Roorkee on various projects and has delivered numerous Guest Lectures at the institute. He has also presented various papers on Ground Water, Hydro and Solar power, and Climate Change at various National and International Workshops.

**About CESEDM:** Centre of Excellence in Structural Engineering and Disaster Management has been functioning as an inter-disciplinary body at JUIT Wagnaghat with a vision of creating and disseminating intellectual resources aimed at improving the overall quality of built environment, primarily focused at disaster risk assessment, reduction and management ensuring life safety within economic, physical, social, cultural, and environmental constraints.

**About the Department of Civil Engineering:** Civil Engineering Department in JUIT was established in 2003. It is running three full time PG programmes (Structural Engineering; Construction Management; Environmental Science & Engineering) along with UG programme in Civil Engineering. In addition, Ph.D. degree is offered in the areas of Geotechnical Engineering, Structural Engineering, Construction Management, Hydropower Engineering, Environmental Engineering and Water Resources. The department has the state of art facilities for pursuing various R & D activities. The Department is actively engaged in providing consultancy services and training program to different government and private sector in and around Himachal Pradesh.

**About JUIT, Wagnaghat:** Jaypee University of Information Technology, Wagnaghat is set up by Act No. 14 of 2002 vide extraordinary gazette notification of Government of Himachal Pradesh dated May 23, 2002. Approved by the UGC under section 2(f) of the UGC Act, vide letter no. F.9-10/2002(CPP-I) dated 09 December 2002. At present, UG & PG courses are being offered in Bioinformatics, Biotechnology, Civil Engineering, Computer Science & Engineering, Electronics & Communication Engineering, Electronics & Computer Engineering and Information Technology. The University is offering Ph.D. in Bioinformatics, Biotechnology, Civil Engineering, Computer Science & Engineering, Electronics & Communication Engineering, Humanities & Social Sciences, Mathematics and Physics & Materials Science.