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NEWSPAPER CLIPPING SERVICES

Doon Varsity's Geology Dept leads critical research on climate change-induced flooding

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DEHRADUN, 30 Sep: The Geology Department of Doon University has emerged as a key player in the study of climate change impacts on the fragile landscapes of the NW Himalaya. A team led by the

faculty members Dr Vipin Kumar and Dr. Yaspal Sundriyal, a dedicated team - including scholars Firoz Khan, Mohit Kumar Puniya, Sameeksha Kaushik, Neha Chauhan, Dharendra Singh Bagri, and Naresh Rana - is conducting essential research on the escalating risks of flooding and erosion in the Alaknanda River Valley, a region increasingly vulnerable to extreme weather events driven by climate change.

The Alaknanda River Valley has experienced catastrophic flooding events in

1894, 1970, 2013, and 2021 leading to thousands of deaths and more damages. The study focuses on the region's susceptibility to riverbank erosion and evaluates the effectiveness of a retaining wall, which has already shown signs of structural failure. Researchers aim to understand how factors like heavy rainfall, increased runoff, and rapid snowmelt contribute to riverbank instability. The study employs advanced techniques, including UAV mapping for high-resolution terrain models, soil testing for

stability assessments, and simulations predicting flood velocities of up to 20 m/s. These methods are crucial for identifying weak points in the retaining wall and assessing future risks.

The findings underscore the urgent need for enhanced mitigation measures to protect vulnerable communities and infrastructure. The research serves as a vital resource for stakeholders, informing strategies to safeguard lives and enhance resilience against future natural disasters. The ongoing study highlights the

significant risks posed by hydro-climatic events in the Alaknanda River Valley, exacerbated by climate change. As the potential for material displacement and debris flow rises, developing effective strategies to protect the region becomes imperative.

This comprehensive analysis from Doon University not only addresses immediate threats but also emphasises the necessity for proactive measures to ensure community safety and infrastructure resilience.

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