Climate Change Impacts on Icy Mountain Landscapes and Infrastructure: The Case of High Mountain Asia

Dr. Dongfeng LI
(李東鋒博士)
National University of Singapore

High mountain areas are now experiencing amplified climate change, glacier melt, and permafrost thaw. The accelerating glacier retreat and permafrost degradation are associated with frequent hazards including glacier collapses, rockfalls, landslides, debris flows and lake outburst floods from glacial lakes and landslide-dammed lakes. Greater amounts of sediment are mobilized, and fluvial sediment fluxes are increasing. Such mountain landscape instabilities can be largely attributed to climate change and are threatening infrastructure and livelihoods for billions of people. In this talk, I will give an overview of how modern climate change drives the icy landscape changes in the high-mountain areas of Asia. I will also discuss the implications of the increasing mountain hazards and sediment supply for hydropower systems.

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Zoom Link (Mixed-mode)
ID: 992 4969 9833  Passcode: 983837

Enquires: 3943 5494  eesc@cuhk.edu.hk