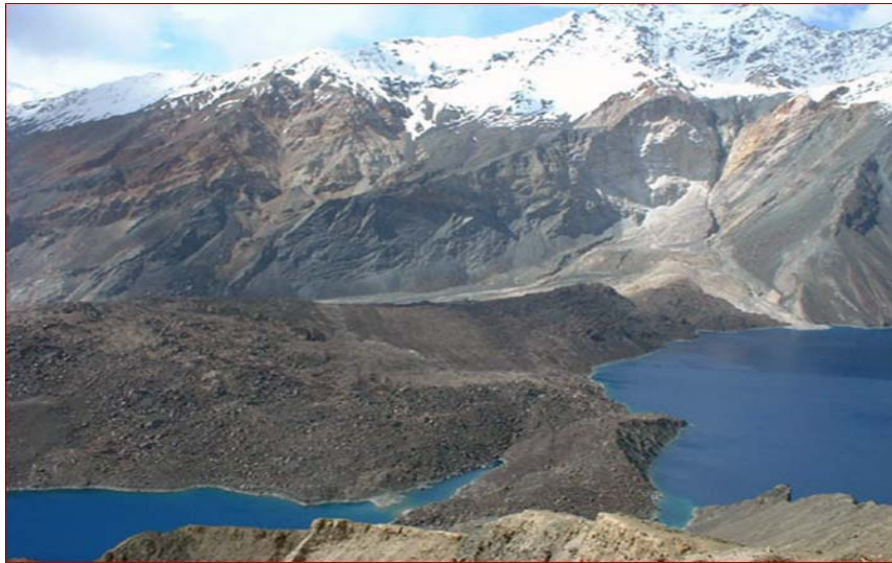




UBC GEOLOGICAL ENGINEERING
AND THE
VANCOUVER GEOTECHNICAL SOCIETY
PROUDLY PRESENT

THE GEOLOGICAL ENGINEERING 2014 DISTINGUISHED LECTURE



“Earthquake-Induced Landslides - Lessons from Taiwan, Pakistan, China and New Zealand”

By Prof. Dave Petley

Wilson Chair in Hazard and Risk, University of Durham

Tuesday, March 4th, 2014 @ 7:00 pm

(refreshments and mingling from 6:00 to 7:00pm)

ESB 1012, Earth Science Building, University of British Columbia

(Link: [Building location and parking information](#))

Public lecture, all are welcome

The Talk: Landslides are an important secondary hazard in large earthquakes in upland areas. In high mountains, landslides typically cause about a third of the fatalities; they impede rescue and recovery operations; and they create a long term legacy as slope failures continue to occur after the aftershock sequence has decayed. Unfortunately, our understanding of the processes occurring within slopes during large earthquakes remains poor. Based on field visits and research by the presenter, this talk will explore some of the landslides triggered by the 1999 Chi-Chi earthquake in Taiwan, the 2005 Kashmir earthquake in Pakistan, the 2008 Wenchuan earthquake in China and the 2011 Christchurch earthquakes. In each case, the talk will focus on some case studies of very large landslides triggered by the earthquake, describing the nature of the failures and the impacts that they caused. This information is then used to explore how and where landslides are triggered by earthquakes. In the final part of the talk, the presenter will outline scenarios for potential earthquakes in New Zealand and Nepal, and the landslides that they would be likely to trigger.

The Speaker: Dave Petley holds the Wilson Chair in Hazard and Risk in the Institute of Hazard, Risk and Resilience at the University of Durham, where he is also the Dean of Research. His own work focuses principally on landslide hazards, especially in young mountain chains such as the Himalayas. One key area of his research has been the mechanics of landslide movements, investigated through a combination of high resolution field monitoring and innovative laboratory testing. More recently he has worked extensively on landslides associated with large earthquakes in mountain chains, especially with respect to the 2005 Kashmir Earthquake and the 2008 Sichuan Earthquake. The other key theme of his research is the impact of landslides in terms of human losses. Since 2002 he has maintained a dataset of landslides that cause loss of life around the world.

In terms of his international role, Dave sits on the Slope Safety Technical Review Board in Hong Kong, the scientific committee for gravitational instabilities for the Observational National Service in France, and the Joint Technical Committee on Landslides and Engineered Slopes, and he has worked extensively on landslide disasters in Asia. He is also the author of The Landslide Blog (<http://blogs.agu.org/landslideblog/>), hosted by the American Geophysical Union.