Landslide Hazards and Related Phenomena (May 16-20, 2016)

Overview

Himachal Pradesh is strategically very important for India because of sharing of borders with the neighboring country China. The State has highly dissected mountain ranges interspersed with deep gorges and valleys. Landslide downslope movement of soil or rock on a failure plane is the most common natural hazard in Himachal Pradesh, which causes immense risk to life and property. Therefore, the construction and the safety of the infrastructure such as building of roads, airports and railway networks in this area is demanding. Landslides in this area are usually triggered due to earthquake and or rainfall.

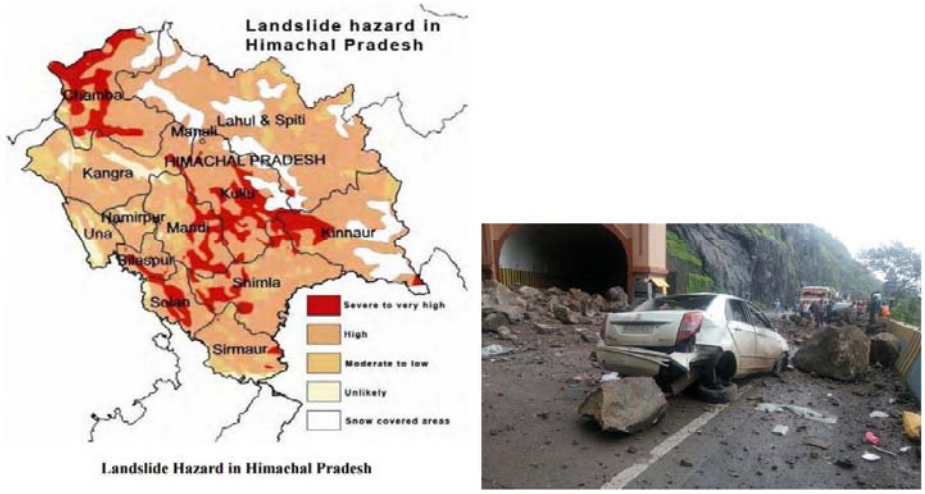

Figure: (Left) An illustration of landslide hazard in Himachal Pradesh using the hazard mapping done by the NIDM (www.nidm.gov.in), (Right) A still photo of a landslide (2015) along the Mumbai-Pune expressway (source: www.timesofindia.com)

Moreover, several other parts of India are also exposed to landslide hazards. Numerous efforts being made by the concerning agencies at different levels to better the society's ability to cope with landslide risks. In this sense, one aspects is related to the implementation of landslide education in Civil engineering in Himachal Pradesh and elsewhere in India. Accordingly, a GIAN course on Landslide Hazards and Related Phenomena has been developed and to be taught for the first time at the NIT Hamirpur. The following objectives are set for this course to benefit the participants.

a) Understand the processes involved in various landslide types.

b) Expertise in the assessment and prediction of landslide hazards.

c) Expert Knowledge about the landslide mitigation and risk assessment strategies.

d) Implement Landslide as a topic/theme in Civil Engineering education in India.

Modules	A: Landslide types and processes : May 16, 2016 B: Assessment of landslide hazards : May 17, 2016

	C: Landslide dynamics : May 18, 2016 **D: Mitigation of landslide hazards : May 19, 2016** **E: Landslide and Risk management : May 20, 2016** **Number of participants for the course will be limited to Forty.**
You Should Attend If…	**1. Geologists, teaching faculty, Researchers and professionals engaged in landslide or geotechnical design and execution** **2. UG/PG/Research Students from Civil Engineering**
Fees	The participation fees for taking the course is as follows: **Participants from abroad: US $200** **Industry/Research Organizations: Rs. 4000** **Academic Institutions: Rs. 2000** **Students (General): Rs. 1000** **Students (SC/ST): Rs. 500** **The above fee include all instructional materials, computer use for tutorials and assignments, laboratory equipment usage charges, 24 hr free internet facility. The participants will be provided with accommodation on payment basis. Fees must be paid in form of crossed Bank Draft drawn in favour of the Registrar, NIT Hamirpur payable at State Bank of India, NIT Hamirpur(Branch code No. 10367).**

The Faculty

Prof. Vikas Thakur is a Professor at the Geotechnical Engineering Department of Civil and Transport Engineering at Norwegian University of Science and Technology (NTNU, www.ntnu.no). Professor Vikas Thakur is also an adjunct professor at Civil Engineering Department, Aalesund University College, Norway. He obtained his PhD from NTNU and NGI (Norwegian Geotechnical Institute). He is regarded as one of the few top scientists within his field of expertise, which is characterization of soft clays and natural-hazards. He has been leading the Inter-governmental research programme(s) on Natural Hazards in Norway (www.naturfare.no). He is currently appointed as a member of the Eurocode-7 standardization committee in Norway. He is committee member of the Indo-Norwegian Research programme by the Research Council of Norway. Apart from Norway and India, he has been associated (visits, collaboration etc.) with the institutes from France, Netherlands, Canada, Japan, Sweden, Finland, Australia. On behalf of NTNU, he has been conducting research for the Centre of Excellence "International Centre for Geo-hazards (2003-2013)". He is now actively involved in a new Research-based Innovation Centre called "Klima2050" (2014-2022) which is doing active research on Landslides (debris flow, mudflow, flooding). He is coordinator of NTNUs International Master Programme "Geotechnics and Geohazards". He is leader of a national project on the development of a massive open online course related to the geotechnical engineering (www.hials.no/geo). He was the board leader for the Geotechnical Association in Trondheim 2012-2014. He was awarded the Global Future award by the Norwegian Federation for Business (NHO) in 2012. He has been appointed as commission member by the Norwegian Govt. to investigate the cause and consequence of landslides. He has been executing various large projects nationally and internationally.

Dr. Chandan Ghosh is a professor and head of Geo-Hazard Risk Management Division & IT Section at National Institute of Disaster Management (NIDM, www.nidm.gov.in). He has specialization in earthquake geo-technology and is a double doctorate degree holder from India and Japan. Prior to this, he had worked at Institute of Technology under Banaras Hindu University (ITBHU) and Indian Meteorological Department (IMD). His area of expertise are reinforced earth, application of geo-synthetics for landslides, slope stability & erosion control, geotechnical & geophysical exploration, disaster resistant housing technologies, retrofitting and earthquake risk mitigation and management.

Course coordinators:

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