



DEPARTMENT OF CIVIL ENGINEERING

SEMINAR

On the coseismic landslides occurring on tephra slopes triggered by the 2016 and 2018 Hokkaido Eastern Iburi earthquake in Japan**Dr. Gonghui Wang**Research Center on Landslides at Disaster Prevention Research Institute,
Kyoto University, Japan

Date: July 17, 2019 (Wednesday)
Time: 4:00 p.m. - 5:00 p.m.
Venue: Room 612B, 6/F Haking Wong Building
The University of Hong Kong

Abstract

Earthquake-induced landslides in tephra deposits are among the most hazardous geological processes; they are very catastrophic in some cases, because they can be triggered on gentle slopes with rapid and long movement. By now, many studies had been performed on this kind of landslides from the point of geological, geomorphological, geophysical, and geotechnical views, but much concerning the prediction of such kind of landslide remains unclear. In this talk, the coseismic landslides occurring on tephra slopes triggered by the 2016 Kumamoto earthquake and 2018 Hokkaido Eastern Iburi earthquake in Japan will be introduced. The geological features of some typical landslides were examined. The shear behavior of soil layers along the sliding surfaces had been examined by performing both in-situ direct shear tests and drained/undrained dynamic ring shear tests. During the tests, the samples were prepared at different initial water contents, and sheared by applying static or cyclic loadings. Based on these results, the possible initiation and movement mechanisms of these landslides were analyzed.

About the Speaker

Associate Professor Gonghui Wang is a member of the Research Center on Landslides at Disaster Prevention Research Institute, Kyoto University, focusing on landslide measurements from the perspectives of geophysics, geotechnics, and engineering geology. His research topics mainly include (1) soil erosion dynamics on loess plateau, (2) construction-related geotechnical research on the variation of deformation modulus and bearing capacity of foundations, (3) rapid and long-travel movement of fluidized landslides, (4) Analysis and mitigation of reactivated large landslides, (5) landsliding phenomena under abnormal weather condition, (6) stability analysis of landslide dam, (7) long-term seismic monitoring and landslide risk assessment during earthquake. He held the title of guest professor of China University of Geosciences (Beijing), Lanzhou University, Chang'an University, and Chengdu University of Technology and Science. He works as the editors of several international journals, such as Engineering Geology, Landslides, Geography Journal, Geosciences, etc, and also some Japanese and Chinese journals.

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