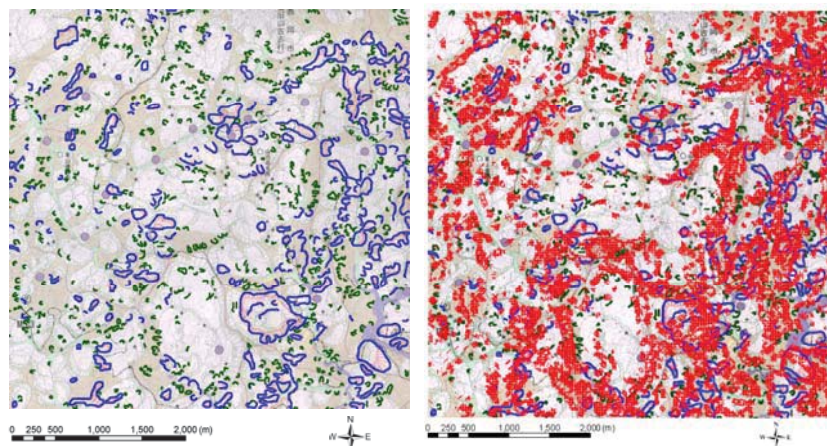


Analysis, Evaluation and Disaster Mitigation of Landslides and Engineered Slopes under Earthquakes and Rainstorms

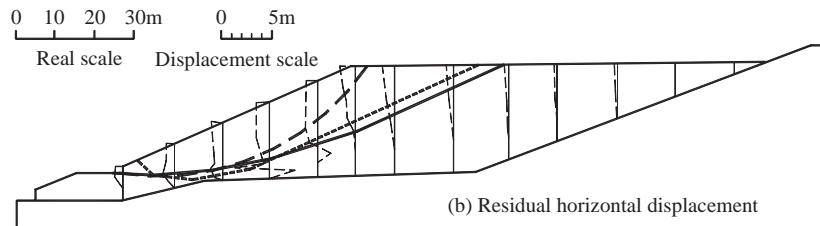
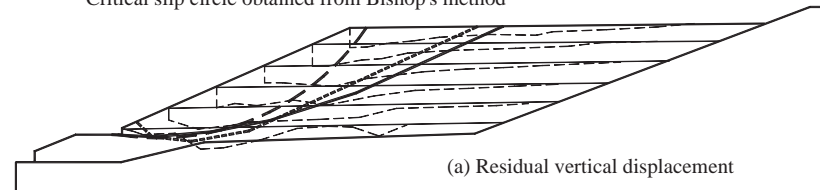
Associate Professor Jing-Cai Jiang



Distribution of landslides in the Yamakoshi village area triggered by 2004 Niigata-ken Chuetsu Earthquake

Distribution of calculated seismic displacements of slopes and actual earthquake-induced landslides

- Slip surface with maximum permanent displacement
- - - - Critical slip surface located in static FE stress field
- · - Critical slip circle obtained from Bishop's method



Estimated and observed deformations in Kotobukiyama fill slopes caused by 1978 Earthquake off Miyagi Prefecture

Content:

My research interests cover a number of areas in landslides and engineered slopes under earthquakes and rainstorms: field reconnaissance and investigation of earthquake or/and rainfall-induced slope disasters, mitigation of slope disasters natural and engineered slopes associated with highways, and slope stabilization works. Our research achievements in three-dimensional slope stability analysis, back calculations of shear strengths of landslide soils, remedial works of large landslides and rockfall numerical simulations have been published as original papers in top-rank international journals in geotechnical engineering, such as *Soils & Foundations*, *Canadian Geotechnical Journal*, *Computers & Geotechnics*, and *ASCE Journal of Geotechnical and Geoenvironmental Engineering*.

Present and recent interests of research:

- Risk assessment of earthquake-induced landslides
- Seismic instability evaluation of large scale cut/rock slopes
- Static/dynamic shear strengths of landslide soils and slope stabilization design
- Characteristics of failure/slip surfaces and ground water of landslides in fissure soils
- Landslide potentials around reservoirs and their risk/damage assessment under strong earthquakes
- Rockfall numerical simulation using DEM and DDA

Keywords: landslides, rainfall, earthquake, disaster mitigation

E-mail: jiang@ce.tokushima-u.ac.jp

Tel. +81-88-656-7346

Fax: +81-88-656-7346

HP : <http://www.ce.tokushima-u.ac.jp/en/index.html>

