New horizons brought by UAV remote sensing

Convener:*Akihiko Kondoh(Center for Environmental Remote Sensing, Chiba University), Hitoshi Hasegawa(Dep.Geography Kokushikan Univ.), Yuji Kuwahara(Department of Urban and Civil engineering, school of Engineering, Ibaraki University), Hiroshi Inoue(National Research Institute for Earth Science and Disaster Prevention), Chair:Hiroshi Inoue(National Research Institute for Earth Science and Disaster Prevention), Hitoshi Hasegawa(Dep.Geography Kokushikan Univ.)

Fri. May 2, 2014 9:00 AM - 10:45 AM  211 (2F)

Satellite remote sensing always has limitations in timing and area of acquired images. Recent improvement in UAV(Unmanned Areal vehicle) will bring new scope in 'anytime', 'anywhere', and 'easy' remote sensing. We invite recent case studies using UAV remote sensing, and discuss for application from this time on.

9:00 AM - 9:15 AM

Mapping of the fault scarp formed during the 2013 Bohol earthquake by small UAV

3-min talk in an oral session
*Takashi NAKATA¹, Hiroshi INOUE², Mabee CAHULOGIN³, Danikko RIVERA⁵, Robjunelieaaa LIM⁵, Cathy POGAY³ (1.Hiroshima University Professor Emeritus, 2.NIED, 3.PHIVOLCS)

Keywords:UAV, SfM photogrammetry, earthquake fault, 2013 Bohol earthquake

A 5km-long surface fault rupture appeared during 2013 Bohol earthquake (M 7.1) in the Philippine. We took low-altitude air-photos of the ruptures using a small UAV, and made 3D images and contour maps by SfM software. This survey method is a low-cost, easy and effective method for mapping for quick respond field work for unexpected large earthquake damage especially in remote areas in under developing countries.