OMICS International
conferenceseries.com

International Conference and Exhibition on
Satellite

August 17-19, 2015 Houston, USA

Geodetic imaging technologies for research and education

Ramesh L Shrestha, Craig Glennie, Bill Carter and **Hyongki Lee**
University of Houston, USA

Geodetic imaging represents a golden age in geodesy, enabling geodesists to provide never-before-available quantitative information to researchers and educators in the geosciences community, and related fields of science. Air-borne LiDAR, Light Detection and Ranging observations, and such derived products as 'bare earth' digital elevation models, are being used to study about the earthquake deformation fields, fault slip rates, folding mechanisms, landslide dynamics, channel network evolution, landscape response to tectonics, marsh evolution, forestry, archaeological sites and more. LiDAR technology is still developing rapidly, with high priority being given to multi-color systems, and instrument miniaturization that will enable the deployment of LiDAR in remotely piloted aircraft, also known as drones. Therefore these technological improvements become operational new scientific problems which will be brought within reach of an increasingly diverse community of researchers. The National Center for Airborne Laser Mapping (NCALM) provides geodetic imaging technology using airborne LiDAR systems owned by UH to scientific communities at large. In addition to operational funds provided by United States National Science Foundation (NSF) for NCALM's PIs, Co-PIs and staff, the center also receives funding for projects from other federal agencies (e.g., USGS, NASA, NOAA, and the US Park Service), Japanese Government, state agencies, academic institutions, and private sector companies. During the past 12 years NCALM has completed some 130 projects, including 90 'seed projects' proposed by graduate students as part of their research to earn graduate degrees. In the past 5 years NCALM has extended its operations to collect airborne LiDAR observations, which is well beyond the continental United States, including remote projects in Hawaii, New Zealand, Central America, and Antarctica. This presentation will highlight NCALM accomplishments during the last 12 years.

Biography

Ramesh L Shrestha is a PI and the Director for the NSF funded center, the National Center for Airborne Laser Mapping. NCALM's other goal is to provide state-of-the-art research capabilities in geosensing and remote sensing technologies. He has been elected as a University Professor of College of Engineering at UH. His research activities are associated with the application of advanced geodetic and remote sensing techniques, including airborne LiDAR and digital imaging.

rlshrestha@uh.edu

Notes:

J Aeronaut Aerospace Eng 2015
ISSN: 2168-9792, JAAE an open access journal

Satellite-2015
August 17-19, 2015

Volume 3 Issue 3

Page 55