GSA 2016: Introduction to Terrestrial Laser Scanning for Earth Science Research and Education

858 Chris Crosby September 23, 2016 Short Courses 2256

Geological Society of America Annual Meeting Short Course, Denver, CO

501. Introduction to Terrestrial Laser Scanning (Ground-Based LiDAR) for Earth Science Research and Education

Fri., 23 Sept., 8 a.m.–5 p.m., UNAVCO, Boulder.
Instructors: Christopher Crosby & Marianne Okal, UNAVCO

Abstract: This one-day course will provide faculty, students, and professionals with an introduction to terrestrial laser scanning (TLS, also known as ground-based LiDAR). TLS provides high-resolution 3D images of geologic features and has emerged as a powerful tool for applications ranging from outcrop mapping to analysis of earth surface processes. The course will focus on TLS technology, data collection, processing and analysis, and examples of science and educational applications. A combination of lectures and hands-on demonstrations of TLS equipment and data processing will be used.

Agenda:

8:15 AM Welcome & Course Introduction, About UNAVCO

8:45 AM Intro to laser scanning, Applications Examples (Crosby)

9:30 AM Break

9:45 AM Overview of Data Acquisition Concepts & TLS Workflow (Okal)

10:30 AM Hands on demos w/ scanner (1/2 group, 2x scanners - outside)

Overview of Data Processing and Analysis (1/2 group - classroom)

11:45 AM UNAVCO Facility tour

12:15 PM LUNCH

1:00 PM Hands on demos w/ scanner (1/2 group, 2x scanners)

Overview of Data Processing and Analysis (1/2 group - classroom)

2:15 PM Break

2:30 PM Future trends, community support resources, educational resources. Afternoon session Q&A and concluding thoughts.

3:15 PM Review scan data

3:45 PM Participants fill out GSA and UNAVCO ECE course evaluations

4:00 PM Adjourn. Depart for Denver.

Online URL:
https://kb.unavco.org/article/gsa-2016-introduction-to-terrestrial-laser-scanning-for-earth-science-research-and-education-858.html