



GeoTREE Summer Workshops 2007



GeoTREE Center at the University of Northern Iowa is planning the following workshops for summer 2007. These workshops will be held in the **GeoTREE lab** located in the Innovative Teaching & Technology Center building on the UNI campus. These programs are open to federal, state, local and tribal (FSLT) agencies, presenting basic to advanced geospatial technology concepts as well as providing a forum for discussing geospatial technology-related questions.

All workshops are hands-on, providing the opportunity for participants to use GIS, GPS, and Remote Sensing software and data related to workshop topics. Light refreshments and lunch may be provided.

1. Advanced LiDAR Workshop—August 7-8, 2007

Day 1: Fundamentals and Advanced Training. Topics include: *(9 a.m. – 4 p.m.)*

Topics: What is LiDAR? How can you use the data from the Iowa state-wide LiDAR Project? Airborne LiDAR including system specifications, Status of statewide LiDAR project, How to access and process LiDAR data, Incorporating LiDAR into the NED, LiDAR error budget, data-preprocessing, etc. Hands-on training in the GeoTREE computer lab using ArcGIS 9.2 and remote sensing software.

Day 2: LiDAR Applications. Topics include: *(9 a.m. – 3 p.m.)*

Topics: The second day focuses on bringing experts together from across the country to provide lectures on LiDAR applications.

2. GPS into GIS: Advanced GPS Workshop—July 24, 2007 *(9 a.m. – 4 p.m.)*

Topics: *GPS to GIS cycle:* How to collect data using the GPS unit. Configuring the GPS equipment, Data collection techniques, Differential correction using both in real-time and post processing, and exporting data to your GIS.

Potential GPS software: TerraSync, ArcPad, ArcPad Application Builder

Potential GPS hardware: GeoXT, GeoXH and Trimble R6 GNSS survey-grade RTK rover.

Field and lab exercise: This workshop will have extensive lab and field exercises. This includes ArcPad customization, real-time kinematics GPS correction in the field, etc.

3. Introduction to VBA Programming with ArcObjects—July 18, 2007 *(9 a.m. – 4 p.m.)*

Topics: *VBA Programming:* Learn the basics of the VBA programming language (data types, modules, functions and statements)

ArcObjects: ArcObjects Classes, Interfaces, Methods, Properties and Events, Object Model Diagrams

Demo: How to use geoprocessing scripts with ArcObjects in VBA. Program with geographic data, display, geometry, and other objects.

**If you are interested in these workshops, please register at this web site:
www.geotree.uni.edu/workshops2007**