

Workshop 6

Making SAR Accessible

Don Atwood, *Alaska Satellite Facility*

Rudiger Gens, *Alaska Satellite Facility*

8:00 am to 12:00 noon, CEU .4

Room 11

INTRODUCTORY Workshop: This half-day workshop will introduce Remote Sensing professionals to Synthetic Aperture Radar (SAR). At the conclusion of the course, the student will understand the fundamentals of SAR as well as how SAR data is acquired, processed, and used in a wide variety of scientific applications.

Historically, SAR data has been used by a small group of experts, with specialized knowledge and processing tools. However, as more commercial sensors become available, there is an increasing demand to use SAR as a complementary data source for remote sensing and GIS applications. This workshop will enable the student to process SAR data into terrain-corrected, geocoded images that can be combined with other kinds of sensor data. The fundamental concepts introduced will be reinforced through practical demonstrations and exercises. Lastly, the students will learn how data can be acquired in support of their own research projects.

Workshop 8

Digital Terrain Models – Algorithms and Mathematical Procedures

Yaron A. Felus, *Ferris State University*

8:00 am to 12:00 noon, CEU .4

Room 13

INTERMEDIATE Workshop: In order to maximize the benefits of this workshop, participants should have an understanding of fundamental GIS principles. Moreover, basic knowledge of math, statistics and geometry is strongly suggested.

The primary objective of this workshop is to present algorithms and techniques to create, analyze, and utilize Digital Terrain Models (DTM). Basic spatial data structures such as Delaunay triangulation, Voronoi diagram, and Quadtrees will be described. Mathematical procedures for interpolation such as linear, trend estimation, inverse distance and kriging, will be studied using numerical examples. Finally, advanced methods for DTM visualization, analysis and integration such as contouring, 3D scene creation, drainage network, viewshed and watershed delineation, and co-kriging will be presented.

Workshop 9

Thermal Remote Sensing

Charles Olson, Professor Emeritus, *University of Michigan*

1:00 pm to 5:00 pm, CEU .4

Room 13

INTRODUCTORY Workshop: This workshop is for anyone involved in or considering the use of thermal sensors for crop, forest or land-use monitoring, geo-botanical prospecting and/or modeling of thermal energy upwelling from terrestrial features.

The goal of this workshop is to provide an examination of factors affecting thermal signals upwelling from terrain features. Effects of these factors on applications of thermal data in agriculture, forestry, geology, water/wetland management, and wildlife management will be presented and discussed.

ASPRS Committee Meetings

Committee Chairs

9:00 am to 10:00 am

Room 1

Division Directors

9:00 am to 10:00 am

Room 2

Awards Committee

10:00 am to 12 noon

Room 1

Electronic Communications Committee

10:00 am to 12 noon

Room 2

New Board Orientation

10:00 am to 12 noon

Greco Boardroom

Evaluation for Certification Committee

1:00 pm to 3:00 pm

Room 1

Region Officers

1:00 pm to 3:00 pm

Room 2

Education and Professional Development Committee

1:00 pm to 3:00 pm

Room 9

Convention Policy and Planning Committee

3:00 pm to 5:00 pm

Room 1

Professional Practice Division (PPD)

3:00 pm to 5:00 pm

Room 9

the same time, active sensors, hand-held data collection devices, and feature extraction are changing fundamental mapping procedures and the way data is supplied to GIS.

Participants will receive an overview of the systems, technologies, and impacts on mapping in the next two to three years, as well as, the institutional issues involved in implementation.

Workshop 14

Looking Above the Terrain Model: Lidar for Vegetation Assessment

Sorin C. Popescu, *Texas A&M University*

8:00 am to 12:00 noon, CEU .4
Room 10

INTERMEDIATE Workshop: The participants are expected to have a basic understanding of remote sensing techniques and image processing.

The overall goal of this workshop is to introduce participants to lidar processing techniques and applications for deriving information on forest resources and canopy parameters. More specific objectives are to: (1) briefly familiarize participants with basic lidar and laser ranging concepts; (2) introduce types of lidar sensors for forest resources assessment and the Las Lidar data format; (3) review algorithms for deriving information on forest resources; (4) review processing techniques for generating canopy height models and "multi-band" Lidar height bins, (5) introduce participants to TreeVaW, a Lidar processing software for identifying and measuring individual trees on Lidar-derived canopy height models, and (6) discuss an array of processing techniques derived from multi- and hyper-spectral image processing for using Lidar-derived data products for assessing vegetation parameters.

Workshop 15

Assessing the Accuracy of GIS Information Created from Remotely Sensed Data: Principles and Practices

Kass Green, President, *Alta Vista*

Russell G. Congalton, *University of New Hampshire*

1:00 pm to 5:00 pm, CEU .4
Room 10

INTERMEDIATE Workshop: In order to maximize the benefits of this course, participants should have previous experience with GIS and remotely sensed data. In addition, a good understanding of statistical principles is also strongly suggested.

This course focuses on the principles, techniques, and practical aspects of assessing the accuracy of GIS information derived from remotely sensed data. Participants will receive instruction in how to design accuracy assessment procedures, allocate accuracy assessment samples, collect both field and photo reference data, and analyze accuracy assessment results. While spatial accuracy is addressed, the course primarily focuses on methods and analysis for thematic accuracy assessment. Examples of accuracy assessment case studies based on actual project data will be presented and discussed. Each participant in this course will come away with a solid understanding of accuracy assessment procedures for spatial data, and the knowledge to properly interpret the results of such procedures.

ASPRS Committee Meetings

Journal Policy and Publications Committees

8:00 am to 10:00 am
Room 1

Photogrammetric Applications Division (PAD)

10:00 am to 12 noon
Room 1

Primary Data Acquisition Division (PDAD)

10:00 am to 12 noon
Room 4

Membership Committee

10:00 am to 12 noon
Room 2

Photogrammetric Applications Division (PAD)

Lidar Subcommittee

1:00 pm to 3:00 pm
Room 13

Photogrammetric Applications Division (PAD)

Softcopy Subcommittee

1:00 pm to 3:00 pm
Room 4

Transportation Surveys Subcommittee

1:00 pm to 5:00 pm
Room 1

Region Membership Officers' Training

2:00 pm to 5:00 pm
Room 2

Data Preservation and Archiving Committee

3:00 pm to 4:00 pm
Room 4

Remote Sensing Application Division (RSAD) and Geographic Information Systems Division (GIS)

4:00 pm to 6:00 pm
Room 4

By-Laws Committee

5:00 pm to 6:00 pm
Bayshore Ballroom

Division Directors

5:00 pm to 6:00 pm
Greco Ballroom

User Groups

GeoCue

8:00 am to 12:00 noon
Room 5

GeoCue Corporation will host its annual North American user's group meeting at the 2007 ASPRS Conference in Tampa, FL. We will be presenting our latest GeoCue process management solutions as well as soliciting user feedback on features needed for future versions. GeoCue Corporation is a software development and consulting services company specializing in geospatial production management solutions. Our products provide an integrated end-to-end processing framework that, when combined with industry leading production tools, significantly reduces production time from data acquisition to finished product.

ENVI

8:00 am to 12:00 noon
Room 7

ITT Visual Information Solutions invites you to the ENVI User Group Meeting. If you're an ENVI user or would like to learn about ENVI's