

Wednesday, May 7th

12:30 pm to 5:30 pm

Factors of Uncertainty in Monitoring Forest Succession Using Multitemporal Landsat Data

Conghe Song, *University of North Carolina at Chapel Hill*

Remote Sensing Temporal Change In Urban Biomass

Soojeong Myeong, *State University of New York*
Michael Duggin; Paul F. Hopkins, and David Nowak

Mapping Geomorphic Change with Multi-date, Multi-vector ALSM in Steep, Mountainous Terrain

Kelly Crowell, *Los Alamos National Laboratory*
Cathy Wilson, H. Evan Canfield, J. William Carey, and Jared E. Lyman

Multi-Temporal Analysis of Land Cover on the Mongolian Plateau

Stephen H. Boles, *University of New Hampshire*
Xiangming Xiao, Qingyuan Zhang, Sharav Munkhtuya, and Jiyuan Liu

Hyperion and IKONOS Images in African Rainforest Characterization

Prasad S. Thenkabal, *Yale University*
Eden Enclona and Mark S. Ashton

The Impact of Corn Leaf Optical Properties on Image Tone

Charles L. Walthall, *USDA-ARS Hydro & Remote Sensing Lab*
Craig Daughtry and John Norman

Littoral Characterization of Willapa Bay Using Multispectral/Multithermal Imagery and Lidar Data

Karen Steinmaus, *Pacific Northwest National Lab.*
Lyle Hibler and Lee Miller

Semi-automatic Building Extraction from High-resolution Satellite Imagery

YoungJae Lim, *Electronics and Telecom. Res. Inst.*, Rep. of Korea
Hong Gab Kim, Soo Jeong, and KyoungOk Kim

Increased Classification Accuracy of Forest Cover Types Using High Spatial Resolution Multispectral Data

Sean O'Melveny, *Stephen F. Austin State University*
Daniel Unger

Utilizing ASTER Band-ratios for Geological Mapping in the Neoproterozoic Allaqi-Heiani Suture, Southeastern Egypt

Dianwei Ren
Mohamed Abdelsalam

Snow and Ice Products from the Moderate Resolution Imaging Spectroradiometer

Dorothy K. Hall, *NASA/Goddard Space Flight Center*
Vincent V. Salomonson, George A. Riggs, and Andrew G. Klein

Remote Sensing for Comparative Resources Analysis Over Two Contrasting Study Regions

J. K. Mishra, *Indira Gandhi National University*, India
O.P. Sharma and T. Akatsuka

Strategic Urban Forests Assessment: Baltimore, Maryland

Frederick M. Irani, *Maryland Dept. of Natural Res.*

Characterizing the Great Valley of California Using Pan-sharpened Landsat 7 Imagery

Evelyn Torres, *Humboldt State University*
Lawrence Fox III

Subpixel Analysis of Urban Land Cover from TM Imagery

Ming-Chih Hung, *University of Utah*,

Integration of Multispectral Satellite Imagery and Census Data for Estimation of Urban Population Densities

James B. Holt, *U.S. Center for Dis. Control & Prevention*
C. P. Lo

Efficient Despeckling Method on SAR Images

Kwang-Yong Kim, Republic of Korea
Soo Jeong and Kyung-Ok Kim

The Alaska DEM Project: Development of Software Tools for Generating Digital Elevation Models from SAR Interferometric Data

Rick Guritz, *Alaska SAR Facility*
Rüdiger Gens, Chris Wyatt, and Joanne Groves

Automatic Object Extraction and Reconstruction in Lidar Data

Yoonseok Jwa, *Inha University*, Rep. of Korea
Woosug Cho

Development of an Immersive Virtual Forest System Based on Lidar Data

Ikuko Fujisaki, *Mississippi State University*
Robert J. Moorhead, David L. Evans, Scott D. Roberts,
Derek W. Irby, Tao Wang, and Jean Mohammadi-Aragh

Comparison of Building Extraction Algorithms Using Lidar Data

HwiJeong Chang, *Inha University*, Rep. of Korea
Woosug Cho

Lidar Processing for Civil Works Applications

Carlton Daniel, *U.S. Army Topographic Eng. Center*

Automatic Building Reconstruction Using Lidar and Aerial Image

Youngjin Lee, *Inha University*, Rep. of Korea
Woosug Cho

Using Landsat ETM+ Data to Discriminate Volcanic Rocks Around El'gygytyn Crater, Siberia

Cynthia G. Peters, *University of Alaska - Fairbanks*
Virgil L. Sharpton

Wednesday, May 7th, continued

Remote Sensing of Invasive Plants in Southeastern Idaho

Nancy Glenn, *Idaho State University*
Jacob Mundt

Using Hyperspectral Imagery for Ocean Process Studies in Monterey Bay, California

Andrew M. Fischer, *Cornell University*
John P. Ryan

Using Remote Sensing, GIS, and Yield Mapping Systems to Access the Impact of Canada Geese on Crops

Mounir Louhaichi, *Oregon State University*
Douglas E. Johnson and Michael M. Borman

VegMeasure: A C++ Computer Program for Field Measurement of Vegetative Cover

Douglas E. Johnson, *Oregon State University*
Mounir Louhaichi, Mark Vulfson, and Norman R. Harris

Wildlife Migration Monitoring in East Africa Using GIS and Remote Sensing

Sanga-Ngoie Kazadi, *Mie University, Japan*
Douglas E. Musiega

A Regional Perspective of Louisiana Coastal March Dieback Using Landsat 7 EIM+ Imagery

Andrew Beall, *University of New Orleans*
Amber I.T. Sigurdson and Shea Penland

Application of Satellite Images to the Conservation of Aggregate Resources in California

Chris T. Higgins, *California Geological Survey*
Lawrence Busch and Milton Fonseca

Using TIR Remote Sensing to Classify Sources of Thermal Variation in the Umatilla River, Oregon

Scott O'Daniel, *Confederated Tribes of the Umatilla Indian Res.*
Geoffrey Poole

The Alaska Exotic Plant Information Clearinghouse and Mapping Project

Emily F. Binnian, *USGS/Alaska Sci. Cntr./Geographic Sci. Off.*
Michael Shephard and Page Spencer

Characterization of Classified Surface Water Using Geometric Ratioing

Stacey Shankle, *Ducks Unlimited*
Jerry Holden

Early Detection of White Grub Injury in Turfgrass Using Imagery and Field Spectrometer Data

Randy M. Hamilton, *Purdue University*
Christian J. Johannsen, Rick E. Foster, and Timothy J. Gibb

An Evaluation of High Resolution Imagery for Land Cover Classification in a Coastal Environment

Chris Robinson, *NOAA Coastal Service Center*
Bill Stevenson, Mark Finkbeiner, and Renee Seaman

Upper Paraguay River Basin GIS Database – A Tri-national Solution

Dawn Browne, *Ducks Unlimited*
Montserrat Carbonell and Dick Kempka

Topological Relationships for 3-dimensional Spatial Features

Seong Ho Lee, *Electronics and Telecom. Res. Inst.*, Rep. of Korea
Sung Soo Kim, Kyong Ho Kim, and Kyoung-Ok Kim

Mapping All-terrain Vehicle Trails in Alaska Using Rectified Aerial Photos and GPS

Joel Cusick, *National Park Service – Alaska Support Office*

Development of GIS Application System for Efficient Dam Management Support

Lee Geun-Sang, *Chonbuk National Univ*, Republic of Korea
Lim Seung-Hyeon, Choi Yun-Woong, and Park Sung-Kyu

GeoVideo: A First Step to Media GIS

Kyong-Ho Kim, *Spatial Info. Tech. Cntr., ETRI*, Rep. of Korea
Sung-Soo Kim, Sung-Ho Lee, Kyoung-Ok Kim, and Jong-Hun Lee

GIS as a Tool for Oil Spill Response: Example Maps from the SS Jacob Luckenbach Oil Spill Incident

Judd Muskat, *California Dept. of Fish and Game*
Mark Lampinen and Randy Imai

Modeling An XML-Driven Feature Scheme in GIS Application

Do-Hyun Kim, *Spatial & Imaging Information Technology Center, ETRI-CSTL*, Rep. of Korea
Min-Soo Kim

4S Mobile Framework Using Open GIS Standards

Byoung-Woo Oh, *Spatial & Imaging Information Technology Center, ETRI-CSTL*, Rep. of Korea
Mi-Jeong Kim, Eun-Kyu Lee, and Min-Soo Kim

The Atlas of Antarctic Research: Status and Plans

Cheryl A. Hallam, *U.S. Geological Survey*

The Study of Strategies for Acquisition of Moving Object Location

Min Kyoung Wook, Rep. of Korea

Distributed Location Storage Component

InSung Jang, Rep. of Korea

City of Nacogdoches, Texas Internet Map Serving

Tred Riggs, *HUES GIS Laboratory*
Darrel L. McDonald and Daniel R. Unger

Thursday, May 8th

8:00 am to 4:45 pm

Automated Littoral Feature Extraction Using Neural Network Techniques

Karen Steinmaus, *Pacific Northwest National Laboratory*
Whitney Hansen, Peter Gross, and Mike O'Brien

Full Frame DCT-based Digital Watermarking for Copyright Protection of Remote Sensing Images

Punya Thitimajshima, *King Mongkut's Institute of Technology Ladkrabang*, Thailand

Mana Ladhawanidphan and Yuttapong Rangsanseri

Land-use/Land-cover Classification Using GIS and Landsat/TM Data

Prof. Sanga-Ngoie Kazadi, *Mie University*, Japan
Shoko Kobayashi

A Study on the Improvement of Rational Function Model Using the Ground Control Points

Joohyum Kim, *Inha University*, Rep. of Korea
Woosug Cho

Development of Integration System of Digital Photogrammetry and CAD for the Data-reconstruction of Buildings

Bae Sang-Ho, *Daelim College*, Rep. of Korea
Joo Young-Eun and Kang Joon-Mook

Epipolar Image Generation Using Fundamental Matrix

Jinhyeong Bark, *Inha University*, Rep. of Korea
Woosug Cho

Hood in North Part of Iran, Golestan Province, 10-11 August 2001

Farahnaz Fazel Rastgar, *Meteorology*, Iran
Khodadad Bastani

Feasibility of Remote Sensing for Tornado Disaster Response and Recovery

Timothy Olsen, *Univ. of Wisconsin Envir. Remote Sensing Center*

Accessing Data from The National Map

Chris Rusanowski, *USGS - EROS Data Center*

Design of an Application Service Provider Platform for Location-based Advertising

Jaeyun Yoo, *ETRI-Computer & Software*, Republic of Korea
Hea-Ok Choi, Jong-Hun Lee, and Deokgi Park

Design of a Reference System for LBS Platform

Jaeyun Yoo, *ETRI-Computer & Software*, Republic of Korea
Hea-Ok Choi, Jong-Hun Lee, and Cheol-woo Kim

Satellite Images Applied to Geologic, Landscape and Management Risk Map of the Maipu Dept., Chaco Province, Northeastern Region of Argentina

Roberto Torra, *UNNE-UNLP*, Argentina
Jorge M. Sisti and Wualter G. Murisengo

GPS Accuracy Assessment

Daniel Unger, *Stephen F. Austin State University*
Sean O'Melveny

Construction of Realtime DGPS System Via Internet

Joon-Mook Kang, *Chungnam National University*, Rep. of Korea
Eun-Soo Lee, Sung-Ho Cho, and Jae-Hyun Sun

Mountain Pine Beetle Attack Detection Using a Landsat-based Methodology in an Operational Pilot Project

R. Sharma, *University of British Columbia*, Canada
P.A. Murtha, J. Alexander, G. Dagenais, and T. Mitchell

Dynamic Shortest Path Algorithm Application on Urban Transportation Network

Yi-Hwa Wu, *University of Utah*
Ming-Chih Hung

Are All Slopes Created Equal?

Robert C. Weih, Jr., *University of Arkansas - Monticello*
Tabitha Mattson

Color Image Enhancement Based on Local Area Histogram Equalization

Sakreya Chitwong, *King Mongkut's Institute of Technology Ladkrabang*, Thailand
Fusak Cheevasuvit and Satit Intajag

Simulated Normal Color Image from a DOQQ CIR Image

Gayla Malson, *Southwest Texas University*
J. Ronald Eyton

Azimuthal High-pass Filtering

David Viertel, *Southwest Texas University*
J. Ronald Eyton

Implementation of the Grid Coverage Allowing for Efficient and Fast Access to Very Large Datasets in a Pipelined Manner

Hong Gab Kim, *Electronics and Telecom. Res. Inst.*, Rep. of Korea
Kyung Ok Kim

Robust Fuzzy Morphological Processing to Ensure Arbitrary Geometric Transformation for Spatial Imagery

ChangRak Yoon, *Spatial Info. Tech. Cntr., CSTL, STRI*, Rep. of Korea
KwangYong Kim, HongGab Kim, and KyungOk Kim

Detecting Micro-features Using High Resolution Interferometric Synthetic Aperture Radar (IFSAR)

Verner Guthrie, *U.S. Army Engineer Research & Development Center, Topographic Engineering Center*
Edmundo Simental

SPAREF-II: A Clustering Algorithm for Satellite Imagery

Thanh N. Tran, *University of Nijmegen*, Netherlands
Ron Wehrens and Lutgarde M.C. Buydens

Coal Mine Fire Investigation and Management: A Novel Operational Application of Remote Sensing & GIS Technology

Anupma Prakash, *University of Alaska - Fairbanks*

Toward a Projection-free GIS Architecture

Jeong Chang Seong, *Northern Michigan University*

Applying GIS and Aerial Photointerpretation to Analyze Landscape Change: Dove Spring Canyon, Mojave Desert, California

Amy M. Mathie, *USGS*
Leila Gass

Land Use and Land Cover Characterization of Inaccessible Sites in the Colombian Amazon

Joseph P. Messina, *Michigan State University*
Paul L. Delamater

ArcGIS as a Photogrammetric Planning, Review and Inventory Tool

Ron Frederiks, *New York State Dept. of Transportation*

Thursday, May 8th, continued

Yield Estimation for Wheat: A Comparison of a Yield Monitor, Aerial Imagery, and Satellite Imagery

Dennis L. Wright, *Utah State University*
V. Philip Rasmussen, R. Douglas Ramsey, and Doran J. Baker

Field Verification of Sensitivity of Low Forest Cover Mapped Using Satellite Data

Donald Ohlen, *USGS/EROS Data Center*
Michelle Knuppe, Chengquan Huang, and Zhiliang Zhu

Analysis of Resolution and Resampling on GIS Data Values

E. Lynn Usery, *USGS*
Michael P. Finn

A View to the Past: Using Historical Aerial Photographs for Planning and Prioritizing Riparian Restoration Along the Lower Mokelumne River, San Joaquin County, California

Brook R. Edwards, *Humboldt State University*
Steven J. Steinberg and Kent A. Reeves

The Geomorphometric Signature of Valles Marineris From M.O.L.A. D.E.M.

George Ch. Miliareisis, *Tech. Inst. of Athens, Greece*
Nikolaos Ant. Kokkas

Supporting the City of Seattle's Cedar River Watershed Habitat Conservation Plan with Remotely-sensed Data

Duncan C. Munro, *Seattle Public Utilities*

Multiscale Remote Sensing Analysis for Vegetation Monitoring in Kruger National Park, South Africa

Paul Aplin, *University of Nottingham, Great Britain*

A Comparison of Spectral and Spatial Characteristics of Landsat 7 EIM+ to Terra ASTER Imagery

Paula Smit, *L-3 Com. Analytics Corp., USGS/EROS*
Bhaskar Ramachandran and Zheng Zhang

Developing an Image-based GIS Database and Associated Base Maps for the Rendille Land in Northern Kenya

Akira Hirano, *University of Tsukuba, Japan*

Integrating Remote Sensing, Terrain Analysis, and Geostatistics for Mosquito Surveillance and Control

Thomas R. Allen, *Old Dominion University*
David Wong, George Lu, and John Neely

Sub-pixel Aircraft Detection from Hyperspectral Data of Naval Air Station

Peg Shippert, *Research Systems, Inc.*

Remote Sensing-based Geostatistical Estimation of Leaf Area Index in the Yellowstone Coniferous Forest

Ludmila Monika Moskal, *KARS Program Univ. of Kansas*
M. J. Jakubauskas, K. P. Price, and E. A. Martinko

Historic Yellowstone Imagery Processed with DIME Software

Liz Galli-Noble, *Positive Systems*
Todd Twete

Automatic Extraction of Digital Terrain Models and Road Networks Using Multiple Returns Lidar Data

Yong Hu, *York University, Canada*
C. Vincent Tao

Semi-automatic Extraction of Road Centerlines and Building Boundaries from High Resolution Satellite Images

Taejung Kim, *STRC, Korea Advanced Institute of Science & Technology, Rep. of Korea*
Seung-Ran Park

Feature Extraction with the VLS Feature Analyst System

Michael A. O'Brien, *NIMA*
John M. Irvine, Stuart Blundell, and David Opitz

Performance Evaluation of the GENIE System

John M. Irvine, *SAIC*
Michael A. O'Brien, Jeffrey J. Bloch, Steven P. Brumby, Nancy A. David, Diana Esch-Mosher, Neal Harvey, Curtis E. Novak, and Simon Perkins

Water Quality Monitoring Using Remote Sensing Technique

Suwannee Adsavakulchai, *King Mongkut's University of Technology Thonburi, Thailand*
Paweena Panichayapichet

Fuzzy Clustering with Automatic Determination of the Number of Clusters

Yuttapong Rangsanseri, *King Mongkut's Institute of Technology Ladkrabang, Thailand*
Punya Thitimajshima and Jirasak Sittigorn

Evaluation of High Spatial Resolution Geo-spatial Data Techniques for Delineating Land Cover and Fish Habitat Features at East Texas Reservoirs

James Parks, *Texas Parks & Wildlife Inland Fisheries Div.*
Daniel R. Unger and Darrel L. McDonald

Measurement of Impervious Surfaces for Stormwater Management Applications Using Digital Aerial Imagery, Topographic Lidar, and Lidar Intensity Returns

Jason A. Tullis, *University of South Carolina*
John R. Jensen, Kevin D. Riordan, George T. Raber, Angela M. Browne, Jeanine Backman, Brian M. McKay, and Daniel R. Morgan

Friday May 9th

8:00 am to 3:00 pm

Remote Measurement of Water Quality Parameters in Coastal Waters

Luoheng Han, *University of Alabama*

Landscape Pattern Analysis from IKONOS Image Data by Wavelet and Semivariogram Method

Sun Danfeng, China

Combining High-resolution Commercial Imagery with Local Data for Practical Applications

Patrick Bresnahan, *Richland County, South Carolina*

Jeff Liedtke and Michael Wright

Incorporating GLOBE Data into a Remotely Sensed Change Detection Analysis of Androscoggin County, Maine

David K. West, *University of New Hampshire*

Russel G. Congalton

Assessing the Burn Severity of Wildland Fire in Alaska's National Parks

Brian Sorbel, *National Park Service*

NOAA C-CAP, Great Lakes: A Change Detection Approach to Updating Land Cover

Francois G.F. Smith, *Earth Sat. Corp. & NOAA Coastal Svs. Cntr.*

Michael A. Villarreal and Shan Burkhalter

Assessing Development Patterns, Formative Factors, and Ecological Consequences of Land-use and Land-cover Changes in the State of Rhode Island

Alyssa B. Novak, *University of Rhode Island*

Y.Q. Wang

Estimating Mangrove Conversion and Aquaculture Development in the Red River Delta, Vietnam, Using Landsat TM

Karen C. Seto, *Stanford University*

J. Michael Beman

Integration of Remote Sensing and GIS to Evaluate Changes in the Mississippi Coast and Mississippi Sound

Erika C. Cohen, *University of Mississippi*

Greg Easson

Design Concept and Status of the Digital Mapping Camera

Gert Ferrano, *Z/I Imaging Corporation*

Implementing Geographic Information System (GIS) in Nigeria

David Udoma-Michaels, *Discovery GIS Services, Nigeria*

Monitoring Land Cover Change in California Using Multitemporal Landsat TM and Ancillary Data

John Rogan, *San Diego State University*

Jennifer Miller, Doug Stow, Janet Franklin, Lisa Levien, and Chris Fischer

Mapping the Railroad Network with Terrestrial and Aerial Images

Guangping He, *Lambda Tech International, Inc.*

Effects of Lidar Posting Density and Physiography on DEM Accuracy and Flood Risk Prediction

George Raber, *University of South Carolina*

John R. Jensen, Michael E. Hodgson, Jason A. Tullis, Bruce Davis, and John Dorman

Image Registration Techniques for Precision Mars Landing Site Mapping

Fengliang Xu, *Ohio State University*

Kaichang Di, Ron Li, Larry H. Matthies, and Clark F. Olson

Effects of Lidar Post-spacing and DEM Cell Size on Slope Estimation for Hydrologic Modeling

T. Edwin Chow, *University of South Carolina*

Michael E. Hodgson

Effects of Topography and Storm Events on Biological Structure Mapped Using Airborne Remote Sensing

Evelyn Brown, *Univ. of Alaska – Fairbanks, Inst. of Marine Science*

Marín Montes, James Churnside, Chris Wilson, and Anne

Hollowed

What is Under Those Trees? Application of Lidar Scan Angle and Intensity for Ground Characterization in Forested Areas

Kevin Riordan, *University of South Carolina*

Characterizing Vertical Forest Structure Using Small-footprint Multi-return Airborne Lidar

Daniel A. Zimble, *ESRI*

David L. Evans, Robert C. Parker, and George Carlson

Comparison of Lidar and INSAR DEMs with Dense Ground Control

Robert A. Norheim, *Univ. of Washington, College of Forest Res.*

An Exploration into Using Lidar Intensity Measurements for Improving the Estimates of Forest Biophysical Parameters

Sorin C. Popescu, *Dept. of Forestry, Virginia*

Randolph H. Wynne

A Robust Method for Interactive Extraction of Road Centerlines from Spatial Imagery

Xiangyun Hu, *York University, Canada*

C. Vincent Tao

Laser Scanning Technology for Three Dimensional (3D) Modeling of Heritage Sites

Zulkepli Majid, *University of Technology, Malaysia*

Anuar Ahmad, Halim Setan, and Albert Chong

Road Linking Using Fuzzy Reasoning From Satellite Images

Lili Yun, *Kumamoto University, Japan*

Keiichi Uchimura

Rendering Realistic Pine Trees from Lidar Data in a Virtual Forest

Robert Moorhead, *Mississippi State University*

Derek W. Irby, Mahnas Jean Mohammadi-Aragh, Tao Wang,

David L. Evans, Scott D. Roberts, and Ikuko Fujisaki

Exploration of Satellite-measured Vegetation Seasonality for LANDFIRE Land Cover Classification

James E. Vogelmann, *USGS/EROS Data Center*

Zhi-liang Zhu, Brian Tolk, and Chengquan Huang

Neural Network Base Junction Extraction and Description

Arpad Barsi, *Budapest University of Technology, Hungary*

Structural Synthesis of Road Fragments and Centerline Detection from Segmented Aerial Imagery

Lakshman Prasad, *Los Alamos National Laboratory*

Alexei N. Skourikhine and Steven P. Brumby