



asprs THE IMAGING & GEOSPATIAL
INFORMATION SOCIETY

2022 Annual Conference Virtual Technical Program Guide

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ASPRS 2022 Annual Conference (Virtual Program)

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5 Activities

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Click Start Meeting to access each day's webinar

Refer to the detailed schedule in this document for exact start and break times.

All times are Eastern Daylight (UTC-4)

Virtual Conference Webinar - Monday 3/21	<input type="button" value="Start meeting"/> Starts: March 21st 2022, 10:00 am
Virtual Conference Webinar - Tuesday 3/22	<input type="button" value="Start meeting"/> Starts: March 22nd 2022, 10:00 am
Virtual Conference Webinar - Wednesday 3/23	<input type="button" value="Start meeting"/> Starts: March 23rd 2022, 10:00 am
Virtual Conference Webinar - Thursday 3/24	<input type="button" value="Start meeting"/> Starts: March 24th 2022, 10:00 am
Virtual Conference Webinar - Friday 3/25	<input type="button" value="Start meeting"/> Starts: March 25th 2022, 10:00 am

For the best audio experience, a headset is recommended.

If you experience any difficulties during the week, please contact office@asprs.org

Daily Session Overview

		Monday 3/21	Tuesday, 3/22	Wednesday, 3/23	Thursday, 3/24	Friday 3/25
10:00 AM	10:15 AM	Advanced Feature Extraction from Remotely Sensed Data	Mapping and Monitoring of Forest Vegetation	Advanced Photogrammetric Techniques	Emerging Technologies and Applications in Remote Sensing	Changing Urban Vegetation: Planning and Response
10:15 AM	10:30 AM					
10:30 AM	10:45 AM					
10:45 AM	11:00 AM					
11:00 AM	11:15 AM					
11:15 AM	11:30 AM	HD Map Specifications For Autonomous Driving	AmericaView Education: Outreach and High Impact Practices	New Airborne and Spaceborne Imaging Sensors	Achieving Diversity, Equity, and Inclusion in the Geospatial Community	Accuracy Standards: Challenges and Opportunities
11:30 AM	11:45 AM					
11:45 AM	12:00 PM					
12:00 PM	12:15 PM					
12:15 PM	12:30 PM					
12:30 PM	12:45 PM	GIS on the Go/The Future of GEOINT and A/I	AmericaView Education: Classrooms, Art, Games, and Lessons	NGS Datum Modernization Program	Mapping and Modeling Changes in Land Features	Quantitative Analysis and Management of Geospatial Data
12:45 PM	1:00 PM					
1:00 PM	1:15 PM					
1:15 PM	1:30 PM					
1:30 PM	1:45 PM					
1:45 PM	2:00 PM	Classification of Wetlands and Water Bodies	Focus on Career Development: Spotlight on ASPRS Councils	Integrating Deep Learning	Enhancing Geospatial Analysis And Decision Making With GIS	Mapping and Modeling of Urban Infrastructure
2:00 PM	2:15 PM					
2:15 PM	2:30 PM					
2:30 PM	2:45 PM					
2:45 PM	3:00 PM					
3:00 PM	3:15 PM	Ignite-Style Talks	AmericaView Education: Classrooms, Art, Games, and Lessons	Poster Session 1	Poster Session 2	Remote Sensing Applications for Disaster Response And Management
3:15 PM	3:30 PM					
3:30 PM	3:45 PM					
3:45 PM	4:00 PM					
4:00 PM	4:15 PM					
4:15 PM	4:30 PM					
4:30 PM	4:45 PM					
4:45 PM	5:00 PM					

Blue: Oral Presentations

Green: Panel Discussions

Don't Miss Our Vendor Spotlight Sessions!



**BLUE MARBLE
GEOGRAPHICS**

3D Change Detection using Global Mapper

Monday, March 21

9:30 – 10:00 AM

Click here to register:

https://us02web.zoom.us/webinar/register/WN_Vm2kQsheTQS2_KM_K-VFNA

Don't Miss Our Vendor Spotlight Sessions!



TopoDOT[®]

Point Cloud Processing Software

A Comprehensive Solution to Point Cloud Processing

Tuesday, March 22

9:30 – 10:00 AM

Click here to register:

https://us02web.zoom.us/webinar/register/WN_iZJAqCDOQCSI2VpLjAP9aA

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MONDAY, MARCH 21, 2022

all times shown are UTC-4

10:30 AM	-	11:30 AM	ADVANCED FEATURE EXTRACTION FROM REMOTELY SENSED DATA	
10:30 AM	-	10:45 AM	Tracking the Godzilla Dust Plume Using Google Earth Engine Platform	Abena Asare-Ansah
10:45 AM	-	11:00 AM	Shadow Reclassification in Aerial Imagery by Correlation of Spectral Compositions	Austin Breunig
11:00 AM	-	11:15 AM	Application of Remote Sensing to Study the Potential Impact of 2020 Wildfire Events on the Glaciers of Mount Baker, Washington	Shelby Campbell
11:15 AM	-	11:30 AM	Unsupervised Change Detection in Optical Satellite Imagery Using SIFT Flow	Bahaa Awad
11:45 AM	-	12:45 PM	HD MAP SPECIFICATIONS FOR AUTONOMOUS DRIVING	
			Qassim Abdullah, Moderator	
			Eugene Nikolskiy, RoadAR	
			Robert Hoyler, TomTom	
			Philip Hubertus, Here	
			Gene Roe, Lidar News	
1:00 PM	-	2:00 PM	GIS ON THE GO/THE FUTURE OF GEOINT AND A/I	
			Denise Theunissen, Moderator	
			Robert Pitts, New Light Technologies	
			Don Widener, BAE Systems	
2:15 PM	-	3:45 PM	CLASSIFICATION OF WETLANDS AND WATER BODIES	
2:15 PM	-	2:30 PM	Classification of New York State Wetlands Using Spatiotemporal and Textural Features Within Google Earth Engine	Sarina Adeli
2:30 PM	-	2:45 PM	Deep and Machine Learning Image Classification of Coastal Wetlands Using UAS Multispectral Images and Lidar Datasets	Ali Gonzalez Perez
2:45 PM	-	3:00 PM	Integrated Analysis of Mangrove Changes Using the Mangrove Vegetation Index and Random Forest Classification in Gambia	Chukwuma Okolie
3:00 PM	-	3:15 PM	A Study on the Shoreline Changes and Land Use/Land Cover Along the Keta Coastal Zone	Julia Atayi
3:15 PM	-	3:30 PM	Deriving Chlorophyll-a Concentration in New York State Lakes from Sentinel-2 images	Sara Akbarnejad Nesheli
3:30 PM	-	3:45 PM	Quantifying Wetland Microtopography With Remote Sensing: A Review	Tarini Shukla
4:00 PM	-	4:45 PM	IGNITE-STYLE TALKS	
4:00 PM	-	4:05 PM	Assessing Red Pine Seedlings Height Using UAV Point Clouds and Field-Verified Data	Abishek Poudel
4:05 PM	-	4:10 PM	Extending Manhattan, Euclidean, and Actual Driving Distances into 3D	James Riechel
4:10 PM	-	4:15 PM	Extracting Water Bodies in RGB Images with DeepLabV3+ Algorithm	Akula Harika
4:15 PM	-	4:20 PM	GeoAI-Based Forecasting of Anthropogenic Harmful Algae Bloom Events Using Sentinel-3 Imagery and Geospatial Open Social Media Data	Chintan Maniyar
4:20 PM	-	4:25 PM	Geospatial-Based Land-Use Transition Modeling	Asmamaw Gebrehiwot
4:25 PM	-	4:30 PM	Influence of Additional Spectral Bands for Epiphyte Segmentation on DRU-Net	Anjana Menon
4:30 PM	-	4:35 PM	Multiple Oil Pad Detection Using Deep Learning	Anish Giri
4:35 PM	-	4:40 PM	Remote Multi-Layered Data Collection for Predicting Soil Organic Carbon Stock in Tidal Wetlands	Rajneesh Sharma
4:40 PM	-	4:45 PM	Studying Suspended Solids Concentration in the South Chickamauga Creek Using Remote Sensing	Abigail Faxon

TUESDAY, MARCH 22, 2022

all times shown are UTC-4

10:00 AM - 11:30 AM	MAPPING AND MONITORING OF FOREST VEGETATION	
10:00 AM - 10:15 AM	A Comparative Analysis of Pixel-Based and Object-Based Approaches for Forest Above-Ground Biomass Estimation Using Random Forest	Haifa Tamiminia
10:15 AM - 10:30 AM	Analyzing Open Geospatial Data for Forest Reserves Monitoring In Nigeria	John Ogbodo
10:30 AM - 10:45 AM	Application of Remote Sensing in Monitoring Forest Cover Change and Carbon Dioxide Levels at Kisatchie National Forest	Recheal Armah
10:45 AM - 11:00 AM	Assessing the Land Cover Change Around Bayou Perot – Little Lake, New Orleans Using Sentinel 2 Satellite Imagery	Matilda Anokye
11:00 AM - 11:15 AM	Assessment of Wetland Dynamics and Loss in Terrebone Parish Using Remote Sensing	Caroline Apraku
11:15 AM - 11:30 AM	Monitoring Vegetation Density Using Spectral Vegetation Indices: A Case Study of Malam Jabba Region, District Swat, Pakistan	Syeda Ali
11:45 AM - 12:45 PM	AmericaView EDUCATION: OUTREACH AND HIGH IMPACT PRACTICES	
	Tracy DeLiberty, Moderator	
	Aaron Maxwell, West Virginia University	
	Lindi Quackenbush, SUNY-ESF	
	JC Seong, University of West Georgia	
	JB Sharma,	
	Ramesh Sivanpillai, University of Wyoming	
1:00 PM - 2:00 PM	AmericaView EDUCATION: CLASSROOMS, ART, GAMES, AND LESSONS	
	Thomas Mueller, Moderator	
	Peder Nelson, Oregon State University	
	Rebecca Dodge, Midwestern State University	
	Amy Logan, Iowa State University	
	Selina Lambert, Oregon State University	
2:15 PM - 3:00 PM	FOCUS ON CAREER DEVELOPMENT: SPOTLIGHT ON ASPRS COUNCILS	
2:15 PM - 2:30 PM	Student Advisory Council	Lauren McKinney-Wise
2:30 PM - 2:40 PM	Early Career Professionals Council	Madeline Stewart
2:40 PM - 2:50 PM	Sustaining Members Council	Ryan Bowe
3:00 PM - 4:00 PM	FOCUS ON CAREER DEVELOPMENT: VOICES OF THE PROFESSION	
	Karen Schuckman, Moderator	
	Rabia Munsaf-Khan, SUNY-ESF	
	Monica Rajkumar, Florida Atlantic University	
	Sara Courter, Woolpert, Inc.	
	Lorraine Amenda, Towill, Inc.	
	Joe Cantz, CT Consultants	

WEDNESDAY, MARCH 23, 2022

all times shown are UTC-4

10:00 AM - 11:30 AM	ADVANCED PHOTOGRAMMETRIC TECHNIQUES	
10:00 AM - 10:15 AM	Study on the Positional Distribution Pattern Among Candidate Homologous Pixels for Aerial Multi-View Image Matching	Ka Zhang
10:15 AM - 10:30 AM	System for 3D Reconstruction Implemented With Simultaneous Localization and Mapping With Single Camera	Duhsko Murtovski
10:30 AM - 10:45 AM	Range-Based Network Formation to Support Georeferencing of Mapping Swarm Platforms	Andras Ladai
10:45 AM - 11:00 AM	Orthorectification of Strip Imagery in ERDAS Imagine Compared to ArcGIS Pro Ortho Workspace	Carey Johnston
11:00 AM - 11:15 AM	Feature Matching Enhancement Using the Graph Neural Network (GNN-RANSAC)	Abdelgwad Elashry
11:15 AM - 11:30 AM	Evaluation of Unmanned Aircraft Systems for Crash Reconstructions During Suboptimal Environmental Conditions	Michael Starek
11:45 AM - 12:45 PM	NEW AIRBORNE AND SPACEBORNE IMAGING SENSORS	
	Gregory Stensaas, Moderator	
	John Dombzalski, Maxar	
	Tara O'Shea, Planet	
	Malek Singer, Teledyne	
	John Welter, Hexagon	
	Lance Brady, USGS	
	Jon Christopherson, USGS	
1:00 PM - 2:00 PM	NGS DATUM MODERNIZATION PROGRAM	
	Qassim Abdullah, Moderator	
	Dru Smith, NOAA	
	Barry Miller, USGS	
	Hope Morgan, AECOM	
2:15 PM - 3:30 PM	INTEGRATING DEEP LEARNING	
2:15 PM - 2:30 PM	A Comparative Study for Building Segmentation in Remote Sensing Images Using Deep Networks	Bahaa Awad
2:30 PM - 2:45 PM	Best Practices for Accuracy Assessment of Thematic Products Generated using CNN-Based Deep Learning	Aaron Maxwell
2:45 PM - 3:00 PM	Breaking the Bottleneck: Best Practices in Building Training Data in DoD Pathfinder Programs	Dave Cook
3:00 PM - 3:15 PM	Building Change Detection Using High-Resolution Remote Sensing Images With Self-Attention Knowledge Distillation and Multiscale Change-Aware Module	Yuan Lie
3:15 PM - 3:30 PM	Artificial Intelligence Combined With Remote Sensing Increases Drafting Efficiency for Surveying and Mapping	Adam Kersnowski
4:00 PM - 5:05 PM	POSTER SESSION 1	
4:00 PM - 4:05 PM	A Multimodel Method for Estimating Leaf Nitrogen in Maize for In-Season Crop Nitrogen Management	Shilpi Verma
4:05 PM - 4:10 PM	Application of Geospatial Technology to Map the Potential Locations of Chert in the Daniel Boone National Forest, Kentucky	Hannah Bowman
4:10 PM - 4:15 PM	Assessing the Accuracy of Georeferenced Point Clouds from UAS Imagery	Sheng Tan
4:15 PM - 4:20 PM	Collaborative Navigation of Unmanned Ground Vehicles via Reinforcement Learning	Yuci Han
4:20 PM - 4:25 PM	Deep Learning for Strawberry Canopy Delineation and Biomass Prediction from High-Resolution Images	Caiwang Zheng
4:25 PM - 4:30 PM	Integrating Maps and Images for GPS-Denied UAV Geolocalization	Jianli Wei
4:30 PM - 4:35 PM	Development of Geospatial Information Integrated with Big Data for Agricultural Hazard Monitoring in West Java	Riantini Virtriana
4:35 PM - 4:40 PM	Development of the Settlement Areas Suitability Modeling in East Kalimantan to Prepare Candidates for the New National Capital	Tania Anggraini
4:40 PM - 4:45 PM	Dynamic Indoor Worker Navigation for Nuclear Power Plants	Pouyan Boreshnavard
4:45 PM - 4:50 PM	Dzaleka Refugee Camp Watershed	Iyanu Gbiri
4:50 PM - 4:55 PM	Evaluating the Performance of NDSSI, NDTI, and NSMI in the Tennessee River Using Ground Measurements of Turbidity	Braxton Anzalone
4:55 PM - 5:00 PM	Evaluating the Role of Calibration Plot Design and Data Quality in Creating Enhanced Forest Inventories in Maine	Stephanie Willsey

THURSDAY, MARCH 24, 2022

all times shown are UTC-4

10:00 AM - 11:30 AM	EMERGING TECHNOLOGIES AND APPLICATIONS IN REMOTE SENSING	
10:00 AM - 10:15 AM	Land Use/Land Cover Mapping using UAS Imagery: Scene Classification and Semantic Segmentation	Monica Rajkumar
10:15 AM - 10:30 AM	Comparison of the Capabilities of Landsat-9 and PRISMA Satellite Data for Land Use / Land Cover Classification	Aylin Tuzcu Kokal
10:30 AM - 10:45 AM	Deep Learning Detects Invasive Plant Species Across Complex Natural Landscapes Using Satellite Imagery	Thomas Lake
10:45 AM - 11:00 AM	UAV-Based Image/Lidar Data Fusion Using a Deep Convolutional Neural Network for Land Cover Classification	Ahmed Elamin
11:00 AM - 11:15 AM	Detection of Clouds in Medium and High-Resolution Satellite Imagery Using Deep Convolutional Neural Nets	Amit Hasan
11:15 AM - 11:30 AM	Unmanned Aerial Vehicle (UAV) Imagery-Based Traffic Volume Study	Tewodros Gebre
11:45 AM - 12:45 PM	ACHIEVING DIVERSITY, EQUITY, AND INCLUSION IN THE GEOSPATIAL COMMUNITY	
	Amanda Aragon, University of Georgia	
	Kate Schaefer, NGA	
	Bobbi Lenczowski, NGA-Retired	
	Jason San Souci	
	Nadine Alameh, OGC	
1:00 PM - 1:45 PM	MAPPING AND MODELING CHANGES IN LAND FEATURES	
1:00 PM - 1:15 PM	Automated Recognition of Permafrost Disturbances Using High-spatial Resolution Satellite Imagery and Deep Learning Models	Mahendra Udawalpola
1:15 PM - 1:30 PM	Impact of Coal Mining, Thermal Plants, Anthropogenic Activities on Wildlife Corridors for National Parks and Wildlife Sanctuaries	Abhinav Galodha
1:30 PM - 1:45 PM	The Sentinel GreenReport Application Using Google Earth Engine	Chen Liang
2:15 PM - 3:30 PM	ENHANCING GEOSPATIAL ANALYSIS AND DECISION MAKING WITH GIS	
2:15 PM - 2:30 PM	Evaluating Opioid Crisis Resource Inequality in Milwaukee, WI	Amir Masoud Forati
2:30 PM - 2:45 PM	Social Determinants of Learning: Geospatial Considerations	Sri Banerjee
2:45 PM - 3:00 PM	Spatial Modeling of Multi-Scenario Optimal Solar PV Power Plant Distribution to Support Indonesia's Clean Energy Achievement	Kalingga Ihsan
3:00 PM - 3:15 PM	Developing a Web Map to Characterize the Ecological and Social Impacts of Dam Removal	Jason Parent
4:00 PM - 5:00 PM	POSTER SESSION 2	
4:00 PM - 4:05 PM	Glacial Lake Kalapuya - Oregon's Northern Willamette Valley Inundated by Ice-Age Floodwaters from Glacial Lake Missoula	Peter Samson
4:05 PM - 4:10 PM	Hessian Matrix Optimization Strategies for Multidimensional Spatial Data	Bruce Blundell
4:10 PM - 4:15 PM	Investigating the Potential of PlanetScope Imagery to Study Suspended Sediment Concentration in the Tennessee River	Connor Firat
4:15 PM - 4:20 PM	Multi-Scenario Spatial Modeling of Health Facilities Development to Support the Achievement of Universal Health Coverage	Tania Anggraini
4:20 PM - 4:25 PM	Operation Recommendations for UAS Photo-Bathymetry Techniques in Shallow Coastal Water	Larissa Marques Freguete
4:25 PM - 4:30 PM	Performance Evaluation of Building Façade Reconstruction from UAS Imagery	Sheng Tan
4:30 PM - 4:35 PM	Potential Impact of Ground Water Depletion on Vegetation in the Mississippi Delta Using GRACE and MODIS NDVI Data	Sean Jones
4:35 PM - 4:40 PM	Rocky Mountain Way: Best Markets for Live Music in the Rockies	Marty Marquis
4:40 PM - 4:45 PM	SA-Net.v2: Real-Time Vehicle Detection from Oblique UAV Images with Use of Uncertainty Estimation in Deep Meta-Learning	Mehdi Khoshboresh-Masouleh
4:45 PM - 4:50 PM	Spatial-Temporal Deformations of the Lower Apalachicola River	Ali Alruzuq
4:50 PM - 4:55 PM	Spatial-Temporal Analysis of Snowpack on the Rocky Mountains Using GIS	Matthew Mollica
4:55 PM - 5:00 PM	A GIS-Based DRASTIC model for Assessing Groundwater Vulnerability: A Case Study of Lahore	Rabia Munsaf Khan

FRIDAY, MARCH 25, 2022

all times shown are UTC-4

10:30 AM	-	11:30 AM	CHANGING URBAN VEGETATION: PLANNING AND RESPONSE	
10:30 AM	-	10:45 AM	Analyzing Impacts of Land Cover Changes on Land Surface Temperature in Bay Area, California	Indumathi Jeyachandran
10:45 AM	-	11:00 AM	Investigating Seasonal Variation of Urban Heat Island Effect in the City of Chattanooga, TN Using Remote Sensing	A.K.M. Hossain
11:00 AM	-	11:15 AM	Prediction of Population Distribution in 2030 Using Integration of CA-ANN Land Cover Change Method with Numeric Extrapolation	Kalingga Ihsan
11:15 AM	-	11:30 AM	Tangible Geospatial Solutions for Planning Green Spaces in Undervalued Neighborhoods in Metro Atlanta	Amanda Aragon
11:45 AM	-	12:45 PM	ACCURACY STANDARDS: CHALLENGES AND OPPORTUNITIES	
			Qassim Abdullah, Moderator	
			Milena Janiec, USGS	
			Mike Zoltek, GPI Geospatial, Inc.	
1:00 PM	-	2:30 PM	QUANTITATIVE ANALYSIS AND MANAGEMENT OF GEOSPATIAL DATA	
1:00 PM	-	1:15 PM	Data Comparison and Applications of UAV - Drone Imagery Based Point Clouds vs. UAS Lidar Point Clouds	Jennifer Triana
1:15 PM	-	1:30 PM	Accuracy Assessment of Low-Cost Lidar Scanners: VELODYNE® HDL-32E AND LIVOX® MID-40	Carter Kelly
1:30 PM	-	1:45 PM	Web Service for Browsing USGS Photo Archives	Cody Benkelman
1:45 PM	-	2:00 PM	Orthorectification of 1968 Aerial Photography Covering Glacier National Park	Cody Benkelman
2:00 PM	-	2:15 PM	Communicating Building Blocks of Lifelong Learners for Earth Science Applications	Arif Albayrak
2:15 PM	-	2:30 PM	Blur Kernel's Effect on Performance of Single-Frame Super-Resolution Algorithms for Spatially Enhancing Hyperion and PRISMA Data	Kavach Mishra
2:45 PM	-	4:00 PM	MAPPING AND MODELING OF URBAN INFRASTRUCTURE	
2:45 PM	-	3:00 PM	Roadside Forest Modelling Using Dashcam Videos and Convolutional Neural Nets	Durga Joshi
3:00 PM	-	3:15 PM	Geospatial Modeling of Roadside Vegetation Risk on Distribution Power Lines in Connecticut	Harshana Wedagedara
3:15 PM	-	3:30 PM	Spatio-Temporal Analysis of Chattanooga, TN's Urban Forest from 1984 – 2021 Using Remote Sensing	William Stuart
3:30 PM	-	3:45 PM	Teaching Remote Sensing Fundamentals with Campus Drone Mapping and GPS Post-Processing	Jeong Seong
3:45 PM	-	4:00 PM	A Historical Perspective of UAS Monitoring for Campus Facilities and Geoinformatics at Texas A&M University-Corpus Christi	Pratikshya Regmi
4:15 PM	-	5:00 PM	REMOTE SENSING APPLICATIONS FOR DISASTER RESPONSE AND MANAGEMENT	
4:15 PM	-	4:30 PM	Watershed PMP Estimation Using IMERG Precipitation Dataset	Kenneth Ekpetera
4:30 PM	-	4:45 PM	Stakeholder Engagement to Disseminate Flood Severity, Inundation and Critical Infrastructure Exposure Information for Mitigation	Shubharoop Ghosh
4:45 PM	-	5:00 PM	Remote Sensing of Volcanic Eruption Characteristics in the Galapagos Islands	Will Bordash