



# WATER OBSERVING TECHNOLOGY FORUM

THE UNIVERSITY OF  
**ALABAMA** | Alabama Water  
Institute

**April 23-25,  
2024**

**Sellers  
Auditorium  
Tuscaloosa, AL**



# DAY 1

Tuesday,  
April 23, 2024  
Central Time (CT)

Imagery as  
Data

Sellers  
Auditorium

Time	Topic
8:30-8:45	<b>Welcome, Logistics and Introductions</b> Steve Burian, Alabama Water Institute Matt Womble, Alabama Water Institute
	<b>Keynote Presentations</b>
8:45-9:00	<b>The University of Alabama College of Engineering's Water Observing Technology Research and Education</b> Cliff Henderson, University of Alabama College of Engineering
9:00-9:15	<b>The University of Alabama Strategy to Support the Advancement of Water Observing Technology</b> Bryan W. Boudouris, University of Alabama VP for Research and Economic Development
9:15-9:45	<b>Next Generation Water Observing for the Nation</b> Chad Wagner, USGS
9:45-10:00	Coffee/Soda Break
	<b>Plenary Presentations</b>
10:00-10:30	<b>Camera Networks for Weather Monitoring</b> Jerry Brotzge, Western Kentucky University
10:30-11:00	<b>Operational Implementation of Imagery in USGS Water Science</b> Jack Eggleston, USGS
11:00-11:30	<b>Crewed to Uncrewed Systems: Transitioning Hyperspectral Imaging across Platforms to Monitor Harmful Algal Blooms and Water Quality Parameters Across the Great Lakes</b> Andrea Vander Woude, NOAA Great Lakes Environmental Research Laboratory
11:30-13:30	Buffet Lunch/Poster Sessions
	<b>Technology Application Presentations</b>
13:30-13:50	<b>WebCOOS: Delivering Data for Decisions</b> Theo Jass, SECOORA
13:50-14:10	<b>Leveraging USGS HIVIS to Remotely Monitor Streamflow Conditions in the US</b> Marouane Temimi, Stevens Institute of Technology
14:10-14:30	<b>GRIME-AI: Open-source Software for Ecohydrological Science and Education using Ground-based Time-lapse Imagery</b> Troy Gilmore, University of Nebraska
14:30-15:00	Coffee/Soda/Snacks Break
15:00-15:20	<b>Operationalizing Remote Measurements of Streamflow with Fixed and Mobile Camera Platforms</b> Frank Engel, USGS
15:20-15:50	<b>Hydrologic Monitoring using Cameras: Key Takeaways from Initial Deployments</b> Sierra Young, Utah State University Erfan Goharian, University of South Carolina
15:50-16:50	<b>Open Discussion:</b> Imagery as Data for Inland and Near-Shore Waters
16:50-17:00	<b>Day 1 Closing Remarks</b> Steve Burian, Alabama Water Institute



# DAY 2

Wednesday,  
April 24, 2024  
Central Time (CT)

Mobile  
Monitoring  
Systems

Sellers  
Auditorium

Time	Topic
8:30-8:45	<b>Welcome and Logistics</b> Russ Lotspeich, USGS
	<b>Keynote Presentations</b>
8:45-9:15	<b>Creating an Educational Pathway for Autonomous Technology Innovators</b> David Young, RoboNation
9:15-9:45	<b>The Global Drifter Program: Real-Time In-Situ Observation with Autonomous Drifters</b> Luca Centurioni, Scripps Institute of Oceanography
9:45-10:00	Coffee/Soda Break
	<b>Plenary Presentations</b>
10:00-10:30	<b>Autonomous Monitoring for Hypoxia in the Gulf of Mexico</b> Stephan Howden, University of Southern Mississippi
10:30-11:00	<b>Autonomous Distributed Measurement for Water Quality Estimation using Mobile Sensor Networks</b> Bert Tanner, University of Delaware
11:00-11:30	<b>Monitoring South Florida's Coastal Ecosystems: Protecting our Health, Wealth and Happiness</b> Todd Crowl, Florida International University
11:30-13:30	Buffet Lunch/Poster Sessions
	<b>Technology Application Presentations</b>
13:30-13:50	<b>Integrated Acoustic Communications with Underwater Autonomy</b> Aijun Song, University of Alabama
13:50-14:10	<b>USACE ERDC Uncrewed Survey System Development</b> Ian Conery, USACE ERDC
14:10-14:30	<b>Monitoring Great Lakes Fisheries 'at scale' with autonomous vehicles</b> Peter Esselman, USGS
14:30-15:10	Coffee/Soda/Snacks Break
15:10-15:30	<b>Autonomous Power Distribution System for Underwater Vehicles</b> Nina Mahmoudian, Perdue University
15:30-15:50	<b>Recent Development and Operation of CO-OPS' Real-Time, Shallow Water CURrents BuoY (CURBY)</b> Laura Fiorentino - NOAA Center for Operational Products and Services (CO-OPS)
15:50-16:50	<b>Open Discussion:</b> Mobile Observing Platforms for Inland and Near-Shore Waters
16:50-17:00	<b>Day 2 Closing Remarks</b> Russ Lotspeich, USGS



# DAY 3

Thursday,  
April 25, 2024  
Central Time (CT)

## Innovation Partnerships and Technology Showcase

Sellers  
Auditorium

Time	Topic
8:30-8:45	<b>Welcome, Logistics and Introductions</b> Brian Pellerin - USGS
	<b>Plenary Presentations</b>
8:45-9:15	<b>Impact of UA Research and Economic Development Enterprise / Techstars Water Tech and Sustainability Accelerator</b> Dan Blakley, University of Alabama Justice Smyth, Tuscaloosa County Economic Development Authority
9:15-9:45	<b>The Alliance for Coastal Technologies: Enabling Environmental Innovations and Observations</b> Mario Tamburri, University of Maryland Center for Environmental Sciences
9:45-10:15	<b>Government - Industry Innovation Partnerships: How to Make Them Work</b> Maggie Yancey, NASA
10:15-10:45	<b>Smart Lake Erie and CWA Accelerator for a Freshwater Economy</b> Jeff Pu, Cleveland Water Alliance
10:45-11:00	<b>Closing Remarks</b> Brian Pellerin - USGS Tim Haskew, University of Alabama
11:30-13:00	Boxed Lunch Pickup Window Generously Sponsored by Dell
11:00-17:00	<b>Vendor Exhibits / HIF Tours / Government Tech Transfer and Partnership Talks</b>
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13:00-13:30	<b>NSF Convergence Accelerator</b> Catherine O'Reilly, Program Director (virtual)
13:30-14:00	<b>USGS Technology Transfer Office</b> James Mitchell, Technology Enterprise Specialist
14:00-14:30	<b>USBR Prize Competitions</b> Christine VanZomeren, Program Administrator
14:30-15:00	<b>USACE ERDC and ERDCwerx</b> Lynn Zanow and William Klauser (virtual)
16:00	Adjourn (vendors have until 17:00 to exit Sellers)

# DAY 3

## Exhibitors

**Ott HydroMet**

**Fluidion**

**Pacific Gyre**

**University of Alabama**

**Cradlepoint**

**Dell**

**Xylem Analytics – SonTek**

**Kisters North America**

**Evigia Systems**

**Stroud Water Research Center**

**Campbell Scientific**

**Trutta Environmental Solutions**

**Fondriest Environmental**

**RoboNation**

**Sofar Ocean**

**USGS**

**Jaia Robotics**

**iSENSYS, LLC**

**Aquatic Sensors**

**In-Situ Inc**

**Geolux d.o.o.**

