

OHIOVIEW 2021-2022 ACTIVITIES

OhioView Presents: Workshop Series

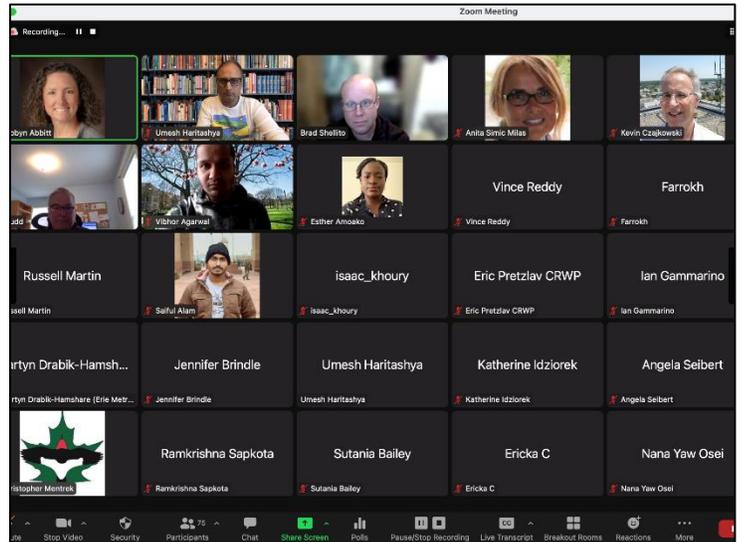
OhioView member universities Youngstown State University, University of Toledo, Bowling Green State University, Kent State University, Miami University, and University of Dayton presented two workshops for a combined attendance of more than 140 participants on February 4 and 25, 2022. PIs from each university presented a section of the workshop that covered a variety of remote sensing and geospatial topics that used freely available software and data. This workshop is the latest in an ongoing series and was held online to be open to participants from across the country throughout the AmericaView network.

OhioView Teacher Training

Ohio teachers participated in professional development to learn how to incorporate satellite imagery and GIS analysis through ArcGIS Online into student projects. An OhioView teacher collaborated, during the summer, with high school students who were part of the University of Texas STEM Enhancement in Earth Science (SEES) Program and traveled to Austin, TX in support of the program. The teachers will use the techniques they learned in their classrooms this school year.

Water Quality Monitoring and Education

Bowling Green State University (Dr. Anita Simic Milas) was part of the ORIGIN (Ohio River Integrated Geospatial Interinstitutional Network) program in collaboration with KentuckyView and West VirginiaView. Undergraduate and graduate students were involved in mapping water properties such as turbidity and chlorophyll-a, an indicator of phytoplankton biomass as well as in mapping soil moisture and evapotranspiration.



Participants in the 2022 OhioView Presents remote sensing workshops participated online via Zoom to receive instruction on multiple types of remote sensing applications using freely available software and data.



ORIGIN / SPLIT (SPatial LITeracy) students – Peer learning: Students learned from each other how to map algal blooms by using various remote sensing software and visualization techniques. Landsat 8/9 and Sentinel-2 data were used for mapping water properties.

BENEFITS TO OHIO

- Initiated in 1997, OhioView is a consortium of universities in Ohio dedicated to furthering education, research, and workforce training in Earth Observation Science. OhioView is overseen by a Board of Directors made up of PIs from several of the universities in the consortium. Many OhioView schools participate in the OhioView Software Pool, by which the member schools contribute to a central fund dedicated to purchasing specialized remote sensing software at a significant cost savings to each school. This software enables the classwork, educational efforts, and research conducted by OhioView universities.
- The OhioView “Online GIS and open-source remote sensing” workshops served approximately 140+ faculty, students, and workforce members over two days. Instruction included using building a ArcGIS StoryMaps Map Tour (Dr. Bradley Shellito), comparison of multispectral and hyperspectral classification (Dr. Joseph Ortiz and Mr. Mac Woodman), using NASA SeaDAS with ocean color and water quality (Dr. Anita Simic Milas and Mr. Kamrul Islam), classification using Google Earth Engine (Dr. Umesh Haritashya and Dr. Vibhor Agarwal), using the NASA Globe Observer app to validate tree height measurements (Dr. Kevin Czajkowski with Mr. Brian Campbell), and mobile data collection with online forms and Survey123 (Ms. Robbyn Abbitt).
- One of the longest running OhioView initiatives is the SATELLITES (Students and Teachers Exploring Local Landscapes to Interpret the Earth from Space) Program. This is offered yearly to K-12 teachers (particularly middle and high school level) in Ohio. and provides teachers and students with hands-on, inquiry-based science and STEM education using geospatial technologies. The student created projects are then presented and showcased at the annual SATELLITES Conference held each spring in Toledo, Ohio that will be May 10, 2023 this year.
- The ORIGIN program established a network of institutions, researchers and students who applied existing and newly developed algorithms for monitoring water quality issues such as algal blooms.
- The SPLIT (Spatial LITeracy) Geoscience program deepened students’ understanding of geoscience using geospatial information through field and hands-on training series. This program was also funded by the NSF.
- Regional partners include NASA Glenn Research Center and the Old Woman Creek State Nature Preserve.



K-12 SATELLITES students at North Star Montessori Academy present their investigation on the Influence of Luge Track Color on Ice Quality at the GLOBE Midwest Collaborative Conference



Participants at the 2022 online OhioView Presents remote sensing workshops receive instruction on using the GLOBE observer app for citizen science in relation to NASA projects.



Participants in the OhioView teacher professional development studying land cover at Earth Heart Farms in Oak Harbor, OH.

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