



VIRGINIAVIEW 2022 - 2023

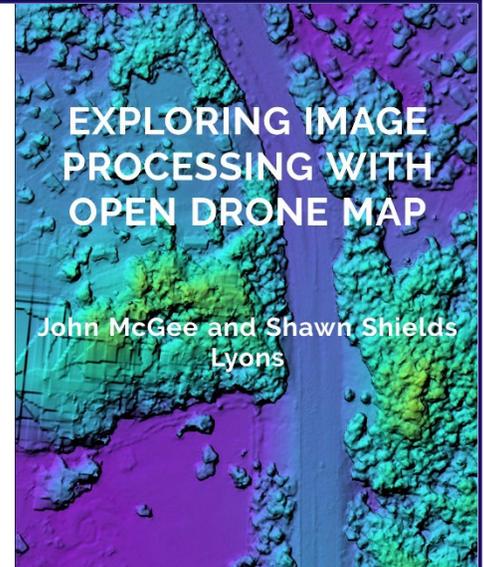
AmericaViewSM
Empowering Earth Observation Education
americaview.org

VIRGINIAVIEW 2022 - 2023 ACTIVITIES

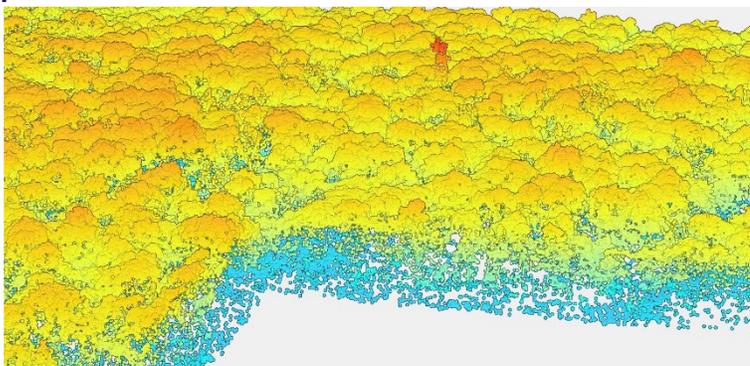
VirginiaView continues to support remote sensing education through a ‘train the trainer model.’ VirginiaView provides pre-college formal educators (primarily high school teachers) and other informal educators (including natural resource and agricultural extension agents, 4-H leaders, etc.) with workforce development opportunities.

Educators in Virginia are attempting to integrate drones into their curriculum, as these platforms serve as a natural hook for STEM-based remote sensing education. In GY 2023, VirginiaView implemented a multi-tiered cloud-based image analysis application based on WebODM to support K-14 and Extension educators directly. The approach provides learners with preprocessed imagery for remote sensing exploration. Sample projects are also provided for an additional level of complexity to allow learners to understand workflows and create products, including point clouds, orthomosaics, and contours.

The image processing system was piloted by community college and high school teachers during the summer 2023.



VirginiaView develops educational resources for classroom and informal educators

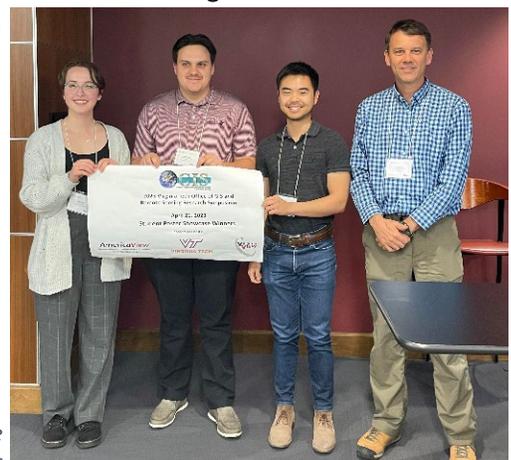


Lidar data, captured with an sUAS is used to assess tree forest metrics surrounding a flux tower in SW Virginia

VirginiaView is working to extend the capabilities of remote sensing research at Virginia Tech by developing additional knowledge, experience, and capacity to conduct research with larger and more complex payloads to support Earth observation. In 2022-2023, research was conducted with lidar and hyperspectral sensors over challenging terrain in southwest Virginia. Documented workflows will to guide future research and Extension programs.

In celebration of Earth Observation Day, VirginiaView cohosted and sponsored the Virginia Tech Office of GIS and Remote Sensing (OGIS) Symposium in the spring 2023. The OGIS Symposium provides students with the opportunity to showcase their research experiences with other geospatial faculty and students from multiple universities. Thirty-four graduate and undergraduate students presented at the symposium.

OGIS Symposium undergraduate poster showcase award winners



VirginiaView is a member of the AmericaView Consortium, a nationally coordinated network of academic, agency, non-profit, and industry partners and cooperators that share the vision of promoting and supporting the use of remote sensing data and technology within each state. AmericaView is funded by USGS grant agreement G18AP00077.

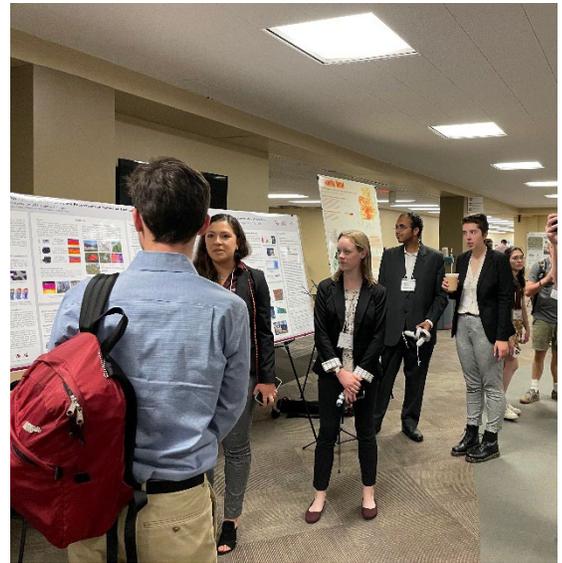
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BENEFITS TO VIRGINIA

VirginiaView responds to the needs of Virginia's communities through professional development at all levels and provides many text-based and video resources for self-paced learners. These educational opportunities are specifically developed to target the evolving needs of Virginia's workforce.

- Instructional video tutorials have been viewed over 512,900 times, with 36,000+ views during GY 2022 alone.
- Video tutorials have been viewed for over 15,900 hours, with 1,400+ hours watched during GY 2022 alone.
- Approximately 50 individuals received remote sensing professional development training during GY 2022 through the *Mapping with Drones* workshop. The majority of workshop participants received their FAA Remote Pilot Certificate (RPC).



VirginiaView sponsors a Remote Sensing Research Symposium, attracting graduates, undergraduates, and faculty from across the New River Valley.

Book Title	Type	Year Pub.	# Copies Down-loaded	# Kindle Pages Read
RS in ArcMap	eBook	2015	516	11,890
Lidar ArcGIS Desktop	eBook	2016	360	20,392
Lidar ArcGIS Desktop	print	2016	77	-
RS in ArcMap	eBook	2017	237	9,274
RS in ArcMap,	print	2017	121	-
RS with ArcGIS Pro	eBook	2019	911	55,471
RS with ArcGIS Pro	print	2019	600	-
Lidar ArcGIS Pro	eBook	2020	289	19,198
Lidar ArcGIS Pro	print	2020	122	-
Total	--	--	3,233	116,225

VirginiaView continues to disseminate remote sensing book (and eBook) tutorials on Amazon. These publications have been extremely popular with over 116,000 Kindle pages read, and 3,200 copies downloaded. These books are utilized by educators across the U.S. and globally. Requests have been granted to translate these materials into different languages. These remote sensing educational resources often utilize Landsat imagery, since this global data archive responds to real-world application needs.

VIRGINIAVIEW CONSORTIUM MEMBERSHIP



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