GeoTEd-UAS
Educator Professional Development Workshops 2021-2022
Call for Applications

The GeoTEd-UAS Institute is a professional development opportunity that provides training for educators in the use of **geospatial technology** and **unmanned aircraft systems** (AKA 'drones', sUAS). At the conclusion of the GeoTEd-UAS Institute, faculty will be better qualified to provide geospatial analysis and sUAS instruction within their primary discipline. Additional information is available from **https://virginiaview.cnre.vt.edu/geoted-uas/**

The cohort members of this institute are expected to serve as trained sUAS operations technicians at their respective community colleges, high schools, and other informal educational groups. They should provide related courses that are needed to meet employer demand. Institutional support is an essential component in the application process.

Who: Community College / 2-Year College Faculty, High School Teachers, Informal Educators
Topic: Small Unmanned Aircraft Systems (sUAS) Operations Technician training and hands-on experience coupled with Geospatial Technician training
When: 3-days, Early Summer, 2021 (mid to late May or early June) & 4-days, early Summer 2022 (Dates TBD, likely late May / early June)
Where: 2021 Locust Grove, VA (Germanna CC), 2022 at Virginia Tech
Online Registration: Complete the **online application form**
Additional Info: **https://virginiaview.cnre.vt.edu/geoted-uas/**

No previous Drone experience required! Past cohort members reflect on the experience as "Drone Camp" for educators. You will learn about mapping with drones, how to plan a drone flight and safely operate a drone, how to effectively implement a drone-based student service learning project, meet new colleagues and establish professional networks to support your educational needs moving forward.

Workshop reflections from previous cohort members-

- *This was awesome! Drones were not something I ever saw myself getting into because there seemed to be such a steep learning curve and I didn't know where to begin, and wasn't sure how it would fit with the classes I teach. But now I feel like I know enough that I can incorporate drones and remote sensing into my courses.*
- *This was a phenomenal experience. I really appreciated how the leaders were willing to modify the schedule to best meet where we were and our diverse needs.*

It was nice to have ample time to work with the imagery in an open, but still structured environment.

Cost: These are free workshop opportunities for a limited number of community college faculty, high school teachers, and informal education leaders. Stipends are available to cohort participants after workshop expectations are met. Participating institutions and organizations are expected to cover the cost of transportation to the workshop (GCC | Locust Grove [2021] and VT | Blacksburg [2022]), and provide leadership and support for the development of UAS pathways at their respective institutions.

Application Process: An online application form must be completed. Note that a letter demonstrating institutional support from your supervisor (i.e. principal, dean, or vice president) is required to complete the workshop application. You can complete the online application now and submit the letter (via email) later. All submitted applications will be reviewed and follow-up interviews may be conducted with qualified faculty applicants. Acceptances and notifications will be provided by December 1, 2020.

Requirements: Each participant in the program will receive a $900 stipend for year #1, and an $700 stipend for year #2 ($1,600 total) provided that expectations within and outside of the institute are met. These expectations include:

- Attend and complete a free Spring 2020 Introduction to sUAS online course. You will receive a drone so that you can practice flying! We will not only get you prepared to get FAA certified (Part 107, needed to legally fly…), but we will also pay for your remote pilot knowledge test where you will receive your FAA Remote Pilot Certificate! Prior to attending the 2022 institute you will be required to have your FAA Remote Pilot Certificate.
- Attend the GeoTEd-UAS Institute (3 days) in the Spring 2021 and in the Spring 2022 (4 days, likely late May or early June). The 2021 Institute will be hosted by Germanna Community College, and the 2022 Institute will be hosted by Virginia Tech.
- Develop sUAS curriculum, courses, and/or pathways within your program to develop UASOT.

Workshop Overview: Small Unmanned Aircraft Systems (sUAS) represents a new data collection tool that can add tremendous value to industry and decision making. Many existing employment sectors have an immediate need for Operations Technicians to take advantage of sUAS operations capabilities. The Federal Aviation Administration (FAA) has recently released new guidelines and regulations for the operation of small UAS. It is anticipated that these guidelines will further spur the proliferation of sUAS technology across employment sectors.

sUAS represents a transformative technology that provides the acquisition of data and information ‘on demand’ by an array of different platforms and sensors, including true color, near-infrared, thermal, multispectral, and lidar. sUAS platforms are increasingly being utilized in an array of disciplines and professions. These data, when integrated with other geospatial tools, including image processing software, geographic information

systems (mapping and analysis software), and geographic exploration systems (primarily mapping software) further enhance collected data to facilitate data-driven decision making. In addition to learning about sUAS, participants will receive an introduction to geospatial technologies, data development workflows. Faculty will share their knowledge and lessons learned to facilitate the integration of these tools in the classroom and through student service-learning experiences.
This professional development opportunity is designed to provide training for educators in the operation of UAS to facilitate data acquisition so that faculty will be better qualified to extend sUAS instruction within their primary discipline. The cohort members of this institute are expected to serve as trained sUAS operations technicians at their respective community colleges, high schools, and other informal educational groups.

Note that completing the online application does not guarantee faculty entry to the 2021 and 2022 workshops. All applications are due by October 31, 2020. A completed application includes submitting the online application, AND a letter acknowledging institutional commitment from your department chair, principle, dean, college vice president, or other supervisor. You are encouraged to submit the online application form now, and provide a letter of commitment via email prior to October 31, 2020.
Acceptances and notifications will be provided by December 1, 2020.
Space is limited. We encourage you to complete an online application form as soon as possible.

This professional development opportunity is provided through the *Improving Pathways Into the Geospatial and Unmanned Aircraft Systems Technician Workforce* (GeoTEd-UAS). GeoTEd-UAS is supported by the National Science Foundation Advanced Technology Education program (NSF ATE DUE: 2000715). If you have any questions about the GeoTEd-UAS, please feel free to contact Cherie Aukland (auklandc@tncc.edu), Chris Carter (VSGC | cxcarter@odu.edu), John McGee (VT | jmcg@vt.edu), Shawn Shields (SShields@germanna.edu), or David Webb (davidewebb@outlook.com).