IGIS 2019 DRONECAMP

A-Z training on using drones for mapping and resource management

The drone market is exploding worldwide. This burgeoning industry needs trained specialists who understand the ins and outs of:

- Regulatory compliance for non-recreational use
- Best practices for project specific deployments
- Effective data processing techniques

At DRONECAMP, you will get experience planning and conducting drone flights; process, analyze and visualize drone data using leading software; and learn how to become an FAA certified drone pilot. Methods covered will include techniques to analyze and visualize:

- 3 dimensional characteristics of features
- Spectral characteristics of vegetation
- Fine-grained topographic surfaces

Please join the UC ANR Informatics and GIS (IGIS) Statewide Program for this comprehensive drone training that will get you up to speed on all of the key components to get you started as a professional drone operator.

June 18-20, 2019
Marina, Monterey County, CA

Agenda

Day 1: Drone Technology, Regulations, & Flight Planning

Learn about drone platforms and sensor technologies, and how they can be applied in the field. Next we'll dive into the regulatory aspects of drone operations, including how to prepare for the FAA's Part 107 Remote Pilot License exam. Finally, we'll use software to plan data flights for data collection.

Days 2 & 3: Flight Practice and Data Processing

We will split into two groups for two days of hands-on flight instruction and drone data processing. During these sessions, you will learn how to fly safely, handle the unexpected in the air, manage your data, and turn images into maps and actionable info using Pix4D mapper and ArcGIS Pro.

Registration

For more information and to register, please visit:
http://ucanr.edu/dronecamp

Registration fee: $900
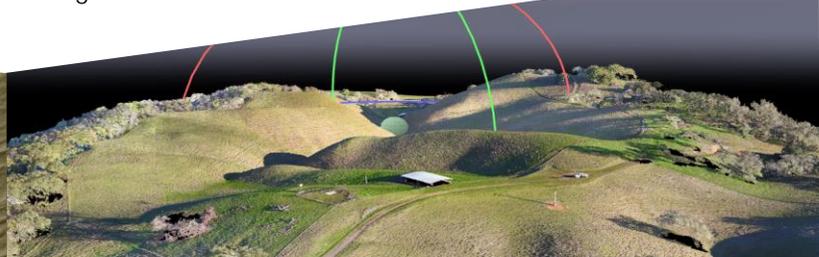*($500 for UC students and employees)*

Sister Program June 21:
DART Industry Symposium
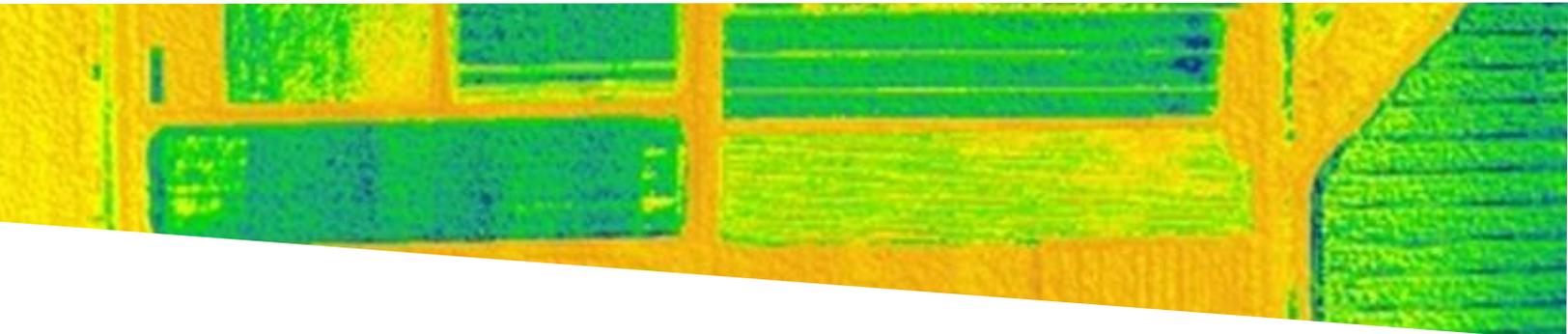
Stay an extra day for an affiliated industry symposium and trade show hosted by Monterey Bay DART (Drones Automation & Robotics Technology).

DRONECAMP participants get a $50 discount off the DART Symposium registration.

DART DRONES AUTOMATION & ROBOTICS TECHNOLOGIES

University *of* California
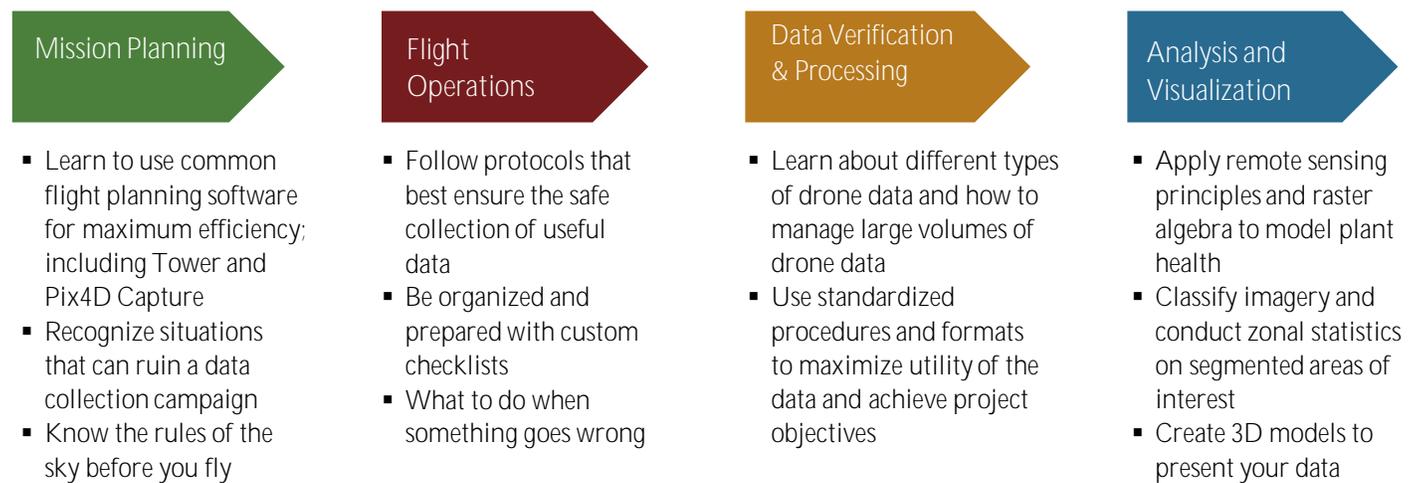## Agriculture and Natural Resources

Consumer level drone technology and software are now capable of applications that few could imagine only a few years ago. However the rapid evolution of this technology has come with a steep learning curve for applying it most effectively in real world situations.

At the 2019 DRONECAMP, experts will cover drone technology, science, and workflows for a variety of missions and data processing scenarios. This comprehensive training will provide participants with a foundation for professional drone mapping, including:

- Flying drones legally for academic and commercial purposes
- How to prevent crashes and injuries
- Using your time in the field effectively and efficiently
- Developing a system for quality assurance and quality control (QAQC)
- Where to go next, and resources for further skills development

Curriculum

Mission Planning	Flight Operations	Data Verification & Processing	Analysis and Visualization
- Learn to use common flight planning software for maximum efficiency; including Tower and Pix4D Capture - Recognize situations that can ruin a data collection campaign - Know the rules of the sky before you fly	- Follow protocols that best ensure the safe collection of useful data - Be organized and prepared with custom checklists - What to do when something goes wrong	- Learn about different types of drone data and how to manage large volumes of drone data - Use standardized procedures and formats to maximize utility of the data and achieve project objectives	- Apply remote sensing principles and raster algebra to model plant health - Classify imagery and conduct zonal statistics on segmented areas of interest - Create 3D models to present your data

Who should attend?

DRONECAMP is designed for participants with little to no experience in drone technology, and who are interested in using drones for a variety of real world mapping applications. This training has an emphasis on agriculture and natural resources, but the methods for flight operations, data processing, and analysis are applicable to a broad range of disciplines, including archaeology, surveying, and facilities management. Note the focus is on mapping and data collection; videography and robotics will not be covered.

IGIS
Informatics and GIS
Statewide Program
UC Division of Agriculture
and Natural Resources

UNMANNED AIRCRAFT SYSTEM
SAFETY
UC Center of Excellence on
Unmanned Aircraft System Safety
UC Office of the President