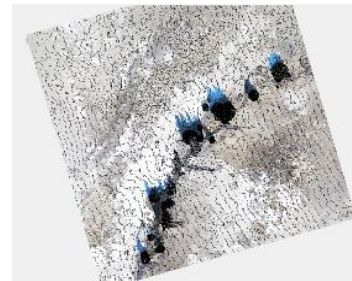
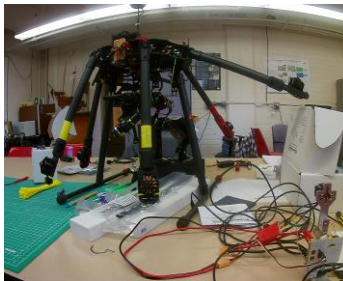


Precision Observation with Drones

Lecture – T: 11:00AM –12:30PM

Lab Th: 11:00 - 1:30PM or 1:30 - 4:00PM

Precision Observation with Drones is an introductory course with a hands-on lab. It stresses the practical and basic engineering aspects of small-scale Unmanned Aerial Systems (UAS) with an emphasis on quadcopters. The course will introduce the students to the new and evolving field of small multirotor drones, their electrical and electronic subsystems, how they work, how to design and build them, understand the basics of flight controller, GPS and navigation, collision avoidance, add useful miniature sensors to observe and measure the physical and biophysical environment. Students will also learn the basics of processing drone images and the course ends with an introduction to government/FAA UAS safety, rules, and basic pilot license requirements. Upon completing this course, the student should become familiar with the technology, understand its potential and limitation, mount and use different miniature sensors, plan autonomous missions, collect and analyze data. The course is aimed at all students with science and engineering background and a desire to learn this technology. A field trip is planned (conditions permitting) where students test their drones and collect images to be processed at the lab.



Instructor and Contact Information

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