DRONETECH
UNMANNED AIRCRAFT SYSTEMS

WORKSHOP GOALS

- THIS WORKSHOP WILL FOCUS ON DEVELOPING AND INTEGRATING PRACTICAL APPLICATIONS OF DRONE AND GEOSPATIAL TECHNOLOGY USE INTO CURRICULUM.
- ONGOING APPLIED RESEARCH PROJECTS WILL PROVIDE DATA AND EXAMPLES OF HOW DRONES AND GEOSPATIAL TECHNOLOGY CAN BE USED TO ENHANCE STEM EDUCATION INTO SUBJECT AREAS.

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DRONETECH PARTNERS

NCAT

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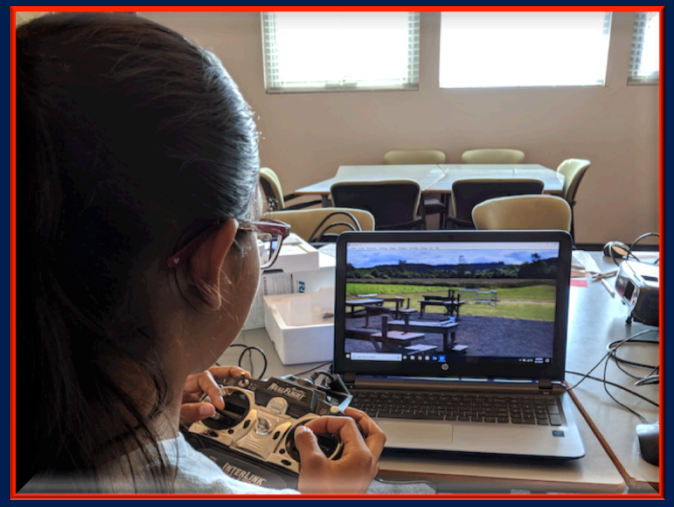

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PRINCIPAL WORKSHOP OBJECTIVES

- SHOW HOW DRONES CAN BE USED TO SUPPORT AND ENHANCE CURRICULUM, ESPECIALLY IN THE 6 – 12 GRADE LEVELS.
  - IT WILL EMPHASIZE, BUT NOT BE LIMITED TO, SOCIAL STUDIES, MATH, PHYSICS, AND ENVIRONMENTAL STUDIES CONTENT.
- ILLUSTRATE SOME BASIC CONCEPTS ON UNMANNED AERIAL VEHICLES (UAV or DRONES) AND THE SENSORS FLOWN ON THEM (UNMANNED AERIAL SYSTEMS or UAS).
  - IN MANY CLASSROOM SITUATIONS UAS TECHNOLOGY IS USED TO ENRICH ALREADY EXISTING COURSE CONTENT.
- DEVELOP LESSON PLAN TEMPLATES THAT CAN BE EMPLOYED TO UTILIZE UAS TECHNOLOGIES IN VARIOUS CLASSROOM SITUATIONS.

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MAIN WORKSHOP THEMES

1) INTRODUCE DIFFERENT TYPES OF DRONES ALONG WITH THEIR QUALITIES AND CAPABILITIES.
2) PRESENT THE VARIOUS TYPES OF SENSORS CARRIED ON DRONE PLATFORMS
   a) THIS WILL REQUIRE A GENERAL OVERVIEW OF THE ELECTROMAGNETIC SPECTRUM IN ORDER TO APPRECIATE THE WAVELENGTHS AT WHICH DIFFERENT SENSORS OPERATE.
3) DISCUSS THE WORKFLOW AND PLANNING FOR FLIGHT AND IMAGE ACQUISITION
4) EXAMINE DIFFERENT TYPES OF UAS ANALYSIS
5) DEVELOP LESSON PLANS DESIGNED FOR CLASSROOM INSTRUCTION NEEDS