UNIVERSITY OF DENVER UNMANNED SYSTEMS RESEARCH INSTITUTE (DU²SRI)

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Save the DATE
Thursday, September 5, 2013

Short Course: UNMANNED AIRCRAFT SYSTEMS: A COMPREHENSIVE OVERVIEW
Date: Thursday, September 5, 2013; 8:30 AM – 5:00 PM
Location: Front Range Airport, Watkins, CO

Agenda

8:30 AM-9:00 AM CONTINENTAL BREAKFAST / NETWORKING / INTRODUCTION

9:00 AM-10:30 AM INTRODUCTION AND HISTORY OF UAS
- Glossary and definitions
- UAVs versus UAS
- System components
- UAS Types (fixed-wing, rotorcraft, other designs)
- Payload, sensors, communication, navigation controllers, ground control stations

10:30 AM-10:45 AM MORNING BREAK (COFFEE / SNACKS)

10:45 AM -12:00 PM NAVIGATION CONTROLLER TECHNOLOGY
- Flight Control Systems
- Nominal error-free flight
- Aggressive (acrobatic) versus non-Aggressive flight scenarios
- Fault tolerant navigation – Emergency landing
- Autopilot technology – state of the art

12:00 PM-1:00 PM LUNCH – FREE TIME, NETWORKING

1:00 PM -2:15 PM SENSOR LIBRARIES AND COMMUNICATION ISSUES
- Sensors (IMU, GPS, Altimeter, Gyro, Magnetometer, etc.)
- Sense-and-avoid systems
- Vision and see-and-avoid systems
- Communication

2:15 PM – 3:30 PM INTEGRATION INTO THE NATIONAL AIRSPACE SYSTEM
- UAS Classes
- Safety
- Roadmap to integration
- Rules and procedures
- Examples

3:30 PM – 3: 45 PM AFTERNOON BREAK (COFFEE / SNACKS)

3:45 PM – 5:00 PM UAS APPLICATIONS
- Traffic monitoring
- Wildfire suppression support
- Search and rescue
- Visual inspection
- Other

A detailed set of notes will be distributed to registered participants.
Please contact Dr. Matt Rutherford <matthew.rutherford@du.edu> with any questions or to reserve your spot. Space will be limited.