

Agenda

Presented by Chuck Adams CEO

Quadcopter Basics

Types
Engineering uses

Bridge Inspection

Bridge inspection per Minnesota Department of Transportation
experience in *Civil Engineering* magazine

Infrastructure Inspection Overview

Inspection of rooftop HVAC units, chimneys, gutters
Dam and water resources structures
Solar panels
Wind turbines, antennae and telecom towers, electric transmission wires
Inside commercial boilers
Offshore drill rigs

Civil Engineering and Surveying

Sewer inspection and water sample collection
Topographical image processing with AutoCAD
Volumes of excavation pits or soil/stone stockpiles
• Calculating cut and fill
3D modeling

Insurance Roof Damage Assessment

Thermal Imaging Below Ground

Construction Progress Monitoring

Rebar inspection example

Simple AutoCAD Plan Production from Drone Photographs

Drone Inspection – Lessons Learned

Federal Aviation Administration Part 107

Certifying unmanned aircraft systems (UAS) remote pilots
Flight restrictions and regulation

Flight Control Basics

In-Class Flight Demonstration

Photography Settings and Video Editing

Uploading and Website Video Embedding

Ethics and Privacy

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Drone Applications for Engineers

Live, Interactive Webinar - Monday, March 21, 2022

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PO Box 278
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Learning Objectives

You'll be able to:

Discuss the engineering uses of quadcopters.

Explore the use of drones for infrastructure inspections and bridge inspections.

Identify civil engineering and surveying opportunities for UAS.

Discuss topographical image processing with AutoCAD.

Review ways to monitor the progress of construction projects.

Learn the basics of flight control.

Understand the ethical and privacy issues associated with UAS use.



HalfMoon Education Live Webinars

Drone Applications for Engineers

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Review the basics of quadcopters

Understand the ins and outs of infrastructure inspections

Explore civil engineering and land surveying roles for drones

Learn how remote pilots of unmanned aircraft systems (UAS) are certified

Take a closer look at software, photography settings and editing

Continuing Education Credits

Professional Engineers

6.5 PDHs



Faculty

Chuck Adams CEO
1UP Aerial Drone Services, headquartered in Golden, CO
Mr. Adams is CEO of 1UP Aerial Drone Services, which sells drones and sensors, and provides expert consultation and aerial services to a range of industries, including engineering, commercial real estate, land development, construction, insurance, forensic science and surveying. Mr. Adams is an FAA Part 107 certified pilot, and a tenured information technology and cloud industry veteran who has spent 25 years in the high-tech industry.

Webinar Information

Log into Webinar 8:30 - 9:00 am CST	Break 11:45 am - 12:15 pm CST
Morning Session 9:00 - 11:45 am CST	Afternoon Session 12:15 - 4:30 pm CST

Tuition
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Additional Learning

- Developing Micromobility Policy and Infrastructure**
- Wed, Feb 23, 2022 | 11:00 am - 1:45 pm CST
- Thurs, Feb 24, 2022 | 11:00 am - 2:45 pm CST

Slope Stabilization and Landslide Prevention
- Wed, Feb 23, 2022 | 8:30 am - 5:00 pm CST

Soils in Construction
- Thurs, Feb 24, 2022 | 12:00 - 4:00 pm CST
- Fri, Feb 25, 2022 | 12:00 - 4:00 pm CST

Introduction to HEC-RAS Modeling
- Fri, Feb 25, 2022 | 8:30 am - 5:00 pm CST

Patent Law for Engineers
- Mon, Feb 28, 2022 | 8:30 am - 4:00 pm CST

Roadway Design
- Mon, Feb 28, 2022 | 8:30 am - 4:30 pm CST

AIA Contract Document Workshop
- Tues, March 1, 2022 | 8:30 am - 5:00 pm CST

Deep Dive: Native Groundcovers and Turf Alternatives for the Northeast
- Wed, March 2, 2022 | 9:30 am - 12:40 pm CST

Shallow Foundation Design
- Thurs, March 3, 2022 | 11:00 am - 2:15 pm CST
- Fri, March 4, 2022 | 11:00 am - 2:15 pm CST

Developing Infrastructure for Electric Vehicles
- Mon, March 7, 2022 | 9:30 am - 4:30 pm CST

Engineered Lumber Design and Construction
- Tues, March 8, 2022 | 8:30 am - 12:10 pm CST
- Wed, March 9, 2022 | 8:30 am - 12:10 pm CST

Complying with Commercial Provisions of the 2021 International Energy Conservation Code
- Wed, March 9, 2022 | 8:00 am - 4:00 pm CST
- Designing and Constructing All-Electric Buildings**
- Wed, March 9, 2022 | 11:00 am - 2:15 pm CST
- Thurs, March 10, 2022 | 11:00 am - 2:15 pm CST

Geothermal Heating and Cooling: Technology, Applications, and Economics
- Wed, March 9, 2022 | 8:30 am - 4:00 pm CST

Emission Control and Monitoring of Gases during Waste Handling/ Treatment
- Thurs, March 10, 2022 | 9:00 am - 12:15 pm CST

HEC-RAS Unsteady/2D Modeling
- Fri, March 11, 2022 | 8:30 am - 5:00 pm CST

Waste Management for COVID 19 Pandemic
- Fri, March 11, 2022 | 9:00 am - 12:15 pm CST

A Roadmap to Ethical Issues in Construction: A Primer for Design Professionals
- Wed, March 23, 2022 | 11:00 am - 1:00 pm CST

High-Performance Building Envelopes: Designing for Energy Efficiency and Durability
- Wed, March 23, 2022 | 10:00 am - 1:45 pm CST
- Thurs, March 24, 2022 | 10:00 am - 1:45 pm CST

Stormwater Best Management Practices
- Fri, March 25, 2022 | 8:30 am - 5:00 pm CST

Biorentention System Design
- Mon, March 28, 2022 | 1:00 - 3:00 pm CST

Designing for Accessibility under ADA Standards and IBC
- Tues, March 29, 2022 | 8:30 am - 12:15 pm CST
- Wed, March 30, 2022 | 8:30 am - 12:15 pm CST

For more information and other online learning opportunities visit: www.halfmoonseminars.org

Continuing Education Credit Information
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Completion certificates will be awarded to participants who complete this event online, respond to prompts, and earn a passing score (80%) on the quiz that follows the presentation (multiple attempts allowed).

Registration

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