

# Agenda

*Presented by Mark D. Jones, P.E.*

## Overview of Unmanned Aircraft Technologies

Manned aircraft vs. unmanned aircraft systems (UAS)  
UAS platforms: fixed wing and rotorcraft  
UAS photogrammetry  
UAS LiDAR

## Commercial UAS Applications

Agriculture  
Architecture and construction  
Engineering  
Environmental monitoring and compliance  
Defense and public safety  
Marketing, media and public relations  
Infrastructure development and maintenance

## Mapping Using UAS

Software set-up  
Preflight planning  
Flight operations and considerations  
Post-processing

## Structural Inspections Using UAS

## Civil Engineering Applications for UAS

Site inspection and site work  
Construction progress monitoring  
3D modeling

## FAA Commercial UAS Regulations

Commercial/recreational UAS  
Remote pilot requirements  
UAS requirements  
Airspace requirements  
Operating rules

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Audio recordings of this seminar are available for purchase starting at \$269. See registration panel for more information and please refer to specific state licensing rules or certification requirements to determine if this learning method is eligible for continuing education credit.

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**Unmanned Aircraft  
Applications for Engineers**  
Fairfax, VA - Friday, April 12, 2019

Halfmoon Education Inc.  
PO Box 278  
Altoona, WI 54720-0278



# Learning Objectives

## You'll be able to:

**Identify** different types of unmanned aircraft systems.

**Explore** commercial UAS applications for engineering, architecture and construction, and infrastructure development and maintenance.

**Learn** about UAS mapping procedures from software setup and preflight planning, to post-processing.

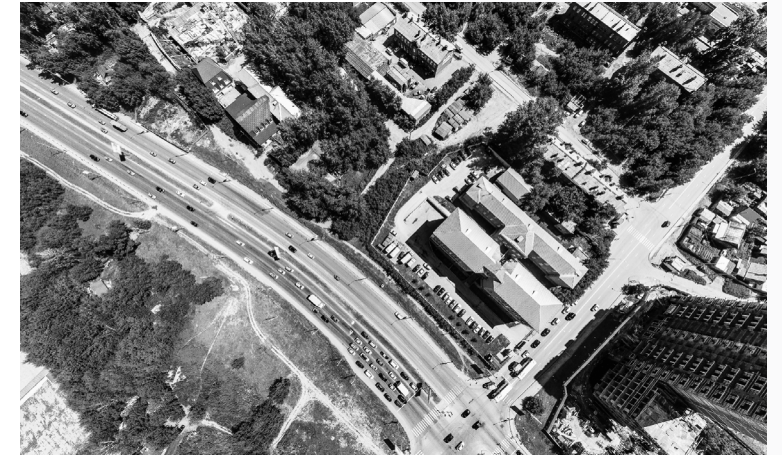
**Explore** UAS applications for structural inspections, site work and construction progress monitoring.

**Understand** FAA commercial UAS regulations.



# Unmanned Aircraft Applications for Engineers

*Fairfax, VA - Friday, April 12, 2019*



**Receive** an overview of unmanned aircraft system (UAS) technologies

**Explore** commercial UAS applications

**Learn** about mapping using UAS

**Examine** the use of UAS in inspections and construction progress monitoring

**Understand** FAA commercial UAS regulations

## Continuing Education Credits

### Professional Engineers

6.5 Continuing Ed. Hours



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# Faculty

**Mark D. Jones, P.E.** *Principal, Hartech Engineering & Consulting, LLC*

Mr. Jones, PE is president of Hartech Engineering which was founded in 2007 as a multi-discipline civil engineering consulting firm providing infrastructure, development and municipal design services for the public and private sectors. Bringing over 30 years of engineering expertise along with specific state-of-the-art, computer-aided technology to achieve efficient, cost saving design solutions, he also provides hydrology and hydraulic studies and reports along with general civil engineering support for prime consultants to PennDOT or local municipality projects. Mr. Jones is a licensed pilot and studied Military Civil Engineering while serving in the USAF and continues his masters education locally through Penn State. He is also a registered professional engineer in the states of Pennsylvania, Maryland, Arizona and Georgia.

# Seminar Information

<b>Hilton Garden Inn Fairfax</b> 3950 Fair Ridge Drive Fairfax, VA 22033 (703) 385-7774	Registration 8:00 - 8:30 am Morning Session 8:30 am - 12:15 pm	Lunch (On your own) 12:15 - 1:15 pm Afternoon Session 1:15 - 4:30 pm
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**Tuition**

**\$289** for individual registration

**\$269** for three or more simultaneous registrations.

**Included with your registration:**

*Complimentary continental breakfast and printed seminar manual.*

**Receive a reduced tuition rate of \$101** by registering to be our on-site coordinator for the day. For availability and job description, please visit [www.halfmoonseminars.org](http://www.halfmoonseminars.org).

**How to Register**

- Visit us online at [www.halfmoonseminars.org](http://www.halfmoonseminars.org)
- Mail-in or fax the attached form to 715-835-6066
- Call customer service at 715-835-5900

**Cancellations:** Cancel at least 48 hours before the start of the seminar, and receive a full tuition refund, minus a \$39 service charge for each registrant. Cancellations within 48 hours will receive a credit toward another seminar or the self-study package. You may also send another person to take your place.

# Additional Learning

**Webinar Series**

**Foundations in Cold Regions**

- **Introduction to Cold Regions Foundations**  
Thurs., Feb. 21, 2019, 11:00 AM -12:30 PM CST
- **Shallow Foundation Design in Cold Regions**  
Thurs., Feb. 21, 2019, 1:00 -2:30 PM CST
- **Deep Foundation Design in Cold Regions**  
Fri., Feb. 22, 2019, 11:00 AM -12:30 PM CST
- **Foundation Construction in Cold Regions**  
Fri., Feb. 22, 2019, 1:00 -2:00 PM CST

**Soil Mechanics and Retaining Wall Design**

- **Soil Investigation and Classification**  
Wed., Feb. 27, 2019, 11:00 AM -1:00 PM CST
- **Retaining Walls: What They Do and How They Do It**  
Wed., Feb. 27, 2019, 1:30 -2:30 PM CST
- **Geosynthetics and Retaining Walls**  
Thurs., Feb. 28, 2019, 11:00 AM -1:30 PM CST
- **Retaining Wall Failures and Fixes/Site Layout and Prevention**  
Thurs., Feb. 28, 2019, 2:00 -4:00 PM CS

**National Electrical Code**

- **National Electrical Code, Part I**  
Wed., March 6, 2019, 11:00 AM - 3:30 PM CST
- **National Electrical Code, Part II**  
Thurs., March 7, 2019, 11:00 AM - 3:30 PM CST
- **National Electrical Code, Part III**  
Fri., March 8, 2019, 11:00 AM - 3:30 PM CST

**Commercial Solar Peaker Batteries**

- **Commercial Solar Peaker Batteries, Part I**  
Wed., March 13, 2019, 11:00 AM - 3:15 PM CDT
- **Commercial Solar Peaker Batteries, Part II**  
Thurs., March 14, 2019, 11:00 AM -2:15 PM CDT

**Handling Ethical Issues in Professional Engineering Practice**

Fri., March 15, 2019, 11:00 AM -12:00 PM CDT

For more information and other online learning opportunities visit:  
[www.halfmoonseminars.org/webinars/](http://www.halfmoonseminars.org/webinars/)

## Continuing Education Credit Information

This seminar is open to the public and offers 6.5 continuing education hours to engineers in all states. Educators and courses are not subject to preapproval in Virginia.

HalfMoon Education is an approved continuing education sponsor for engineers in Florida, Indiana (License No. CE21700059), Maryland, New Jersey (Approval No. 24GP00000700), New York (NYSED Sponsor No. 35), North Carolina, and North Dakota.

Attendance will be monitored, and attendance certificates will be available after the seminar for most individuals who complete the entire program. Attendance certificates not available at the seminar will be mailed to participants within fifteen business days.

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# Registration

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How to Register	
<b>Online:</b> <a href="http://www.halfmoonseminars.org">www.halfmoonseminars.org</a>	
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<b>Complete the entire form.</b> Attach duplicates if necessary.	
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Email address is required for credit card receipt, program changes, and notification of upcoming seminars and products. Your email will not be sold or transferred.	
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Tuition	
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( ) <b>I am not attending.</b> Please send me the self-study package:	
<input type="checkbox"/> Downloadable MP3 Audio/PDF Manual for <b>\$269.00</b> .	
<input type="checkbox"/> CD/Manual Package for <b>\$289.00</b> .	
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