Present a Three-Day Seminar/Workshop

Location
DoubleTree by Hilton Orlando Airport
5555 Hazeltine National Drive
Orlando, Florida 32812
407-856-0100

Wednesday	November 11, 2020	Seminar on Deep Foundation Integrity Testing and Wave Equation Analysis	8:30am – 5:00pm
Thursday & Friday	November 12 & 13, 2020	High Strain Dynamic Foundation Testing Workshop & Proficiency Test	8:30am – 5:00pm

Registration begins at 8:00am

Wednesday, November 11th - Seminar on Deep Foundation Integrity Testing and Wave Equation Analysis

Who should attend:	Learning objectives:
This seminar is suitable for those new to the field of Foundation Testing and Analysis, and includes an overview of non-destructive testing methods (integrity and load testing) and their applications.	Select an appropriate method of integrity assessment of deep foundations for a particular application.
Geotechnical, structural and construction engineers; owners, contractors and other professionals involved in the design, construction and specification of deep foundations.	Review reports of integrity and dynamic load testing of deep foundations conducted by others.
This seminar is suitable for those needing an understanding of wave equation analysis methods.	Run a basic wave equation analysis of pile driving.
It is suitable also for those specifying the testing to gain basic understanding for assessing the results presented in reports.	
Those attending the Workshop that follows this Seminar are strongly encouraged to attend this review of wave equation background materials.	

Digital/ Hard copy of the Presentation:
- **All training material will be available digitally for download prior to the event**. It is suggested that attendees download this material to their laptop and bring their laptop or print the training material and bring their own hard copy.

GRLWEAP Demo License:
- Attendees are encouraged to use their own GRLWEAP USB key license. If you do not have a license or cannot bring the USB key license with you to follow along, a GRLWEAP 10 demo version will be offered and emailed the week before the Workshop.

Seminar on Deep Foundation Integrity Testing and Wave Equation Analysis Program (subject to change)

8:00	Registration
8:30	Wave Mechanics – Basics
9:30	Non-destructive testing – High and Low Strain
10:15	Break
10:30	Non-destructive testing – Crosshole Sonic Logging
11:00	Thermal Integrity Profiling
11:45	PDA Applications
12:15	Lunch
1:15	Wave Equation Background
2:15	Wave Equation Workshop: Bearing Graph, Insp. Chart
3:00	Break
3:15	Wave Equation Workshop: Bearing Graph, Insp. Chart-cont'd
3:45	Wave Equation Workshop: Driveability
5:00	Adjourn

Thursday, November 12th - High Strain Dynamic Foundation Testing Workshop & Proficiency Test Part 1

Who should attend:	Learning objectives:
Users of the Pile Driving Analyzer® (PDA) system and CAPWAP® software interested in sharpening their skills.	Operate the PDA in a manner conducive to acquiring good quality data
Engineers, foundation testing professionals, students and professors already familiar with the basic concepts of deep foundation dynamic testing and analysis	Assess pile bearing capacity, pile driving stresses, hammer performance and pile integrity by various methods
Professionals who desire to have a basic understanding of the dynamic test results being presented to them.	Avoid pitfalls when analyzing PDA data with the CAPWAP software
Those interested in taking the **Dynamic Measurement and Analysis Proficiency Test***	Interpret PDA testing and CAPWAP software results
	Describe the soil-model used in CAPWAP and prepare the input needed
	Review options for CAPWAP analysis and output
	Calculate bearing capacity and its distribution for driven piles from impact records

High Strain Dynamic Foundation Testing Workshop & Proficiency Test Part 1 Program (subject to change)

8:30	Wave Mechanics for PDA testers (90 min)
10:00	Break
10:15	PDA Testing – Proper Practices
12:30	Lunch
1:15	Dynamic Testing of Drilled Shafts and Augered Piles
1:30	Testing Economics
3:15	Break
3:30	Set-up (Capital Gain with Time)
4:15	PDA Workshop: Integrity, Stresses, Energy
5:00	Adjourn

Friday, November 13th - High Strain Dynamic Foundation Testing Workshop & Proficiency Test Part 2 Program (subject to change)

8:30	PDA Workshop: Capacity Calculation
9:15	CAPWAP Background
10:45	Break
11:00	CAPWAP Examples
12:30	Lunch
1:15	CAPWAP and Refined Wave Equation
1:45	iCAP® – Instant Signal Matching
2:15	PDA Data Quality – Examples
3:15	Break
3:30	Dynamic Measurement and Analysis Proficiency Test *
5:00	Adjourn

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Certificate of Completion:
- A Certificate of Completion documenting the number of hours of instruction – Professional Development Hours (PDH's) will be provided. Check with your engineering board of registration for their continuing education requirements.

Dynamic Measurement and Analysis Proficiency Test:
- At the end of the High Strain Dynamic Testing Workshop participants may take a multiple-choice **Dynamic Measurement and Analysis Proficiency Test** which will take less than 1-½ hours to complete. The test will cover the theory of Wave Mechanics, Case Method (PDA) equations, data quality assessment, data interpretation and basic CAPWAP analysis. The test is designed for those with experience in using the Pile Driving Analyzer® system and CAPWAP to perform High Strain Dynamic Foundation Tests. The best preparation for the test is work experience following an initial PDA training. The workshop will refresh the participant's theoretical background and be a reminder of some important points. Those taking the test are advised to study "Appendix A" and "Helpful Hints" of the PDA manual, review some of the EXAMPLE data provided with the PDA and read the CAPWAP background material. These materials are supplied with PDA purchases. Those without access to the manuals and examples should please contact softwaresales@pile.com in advance of the test date. For more information about the Proficiency Test website: **www.PDAProficiencyTest.com**.

- A Certificate of Proficiency in High Strain Dynamic Pile Testing will be awarded to those who pass the test. The Level indicated on the Certificate is dependent on the score achieved on the test. Those who do not pass the test will receive full credit of test registration fee to be applied towards retaking the test at the next opportunity.

Please note it will take up to two weeks to receive your exam results

Workshop and Seminar Lecturers

Garland Likins, P.E., M.ASCE, is the senior partner and past president of Pile Dynamics, Inc., a manufacturer of quality assurance products for deep foundations. He is a licensed Professional Engineer in Ohio and a former principal of GRL Engineers, Inc., providers of deep foundation testing services. In his 45 years since participating in the original dynamic pile testing research at Case Western Reserve University, Garland has performed countless field tests and directed the development of several field-testing devices for deep foundations. He is active in committees for ASTM, ADSC, DFI, and PDCA. He authored numerous publications and frequently lectures on deep foundations.

Ryan Allin, P.E., is a senior engineer and partner in GRL Engineers and Pile Dynamics. He has a B.S. in Civil Engineering from Cleveland State University and has achieved Expert level on the PDCA/PDI Dynamic Measurement and Analysis Proficiency Test. After several years performing the entire range of services offered by GRL throughout the United States and in international offshore projects, Ryan is currently responsible for all GRL's educational programs for foundation testing professionals. In that capacity he has lectured on numerous seminars, webinars and workshops on foundation testing and has co-authored papers on the subject. Ryan is a member of the American Society of Civil Engineers and a registered professional engineer in Ohio, Pennsylvania, West Virginia, Delaware and Kentucky.

Hotel Reservations – Attendees should make their own hotel reservations.

REGISTRATION

Online Registration: www.piledrivers.org

Early Bird Deadline: Friday, October 16, 2020

Mail, Fax, or Email: Registration form by Friday, October 30, 2020 to:

Pile Driving Contractors Association
33 Knight Boxx Road, Suite 1, Orange Park, FL 32065
Phone: 904-215-4771; Fax: 904-215-2977
kathy@piledrivers.org

Name(s): _____

Organization:_____

Address:_____

City:_____ State/Province:_____ Postal Code: _____ Country:_____

Phone: _____ Fax: _____ Email: _____

REGISTRATION FEES (Includes: AM/PM Breaks and Lunch):

☐ Seminar on Deep Foundation Integrity Testing and Wave Equation Analysis: **$300.00**

☐ High Strain Dynamic Foundation Testing Workshop: **$550.00**

☐ Dynamic Measurement and Analysis Proficiency Test **(*No Discounts*)**:   **$200.00**
   *If you do not pass the test you are allowed one (1) retake of the test at no additional charge at the next course

☐ Early Bird Registration: $50 discount on *each* Seminar and Workshop by August 9, 2019

☐ Government Employees: $50.00 discount on *each* Seminar and Workshop

<div style="text-align:right">

Amount sub-total: $_____

Discount (if applicable – subtract): $_____

Grand Total: $_____

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CREDIT CARD INFORMATION:

I am paying by: ___ VISA   ___ MasterCard   ___American Express   ____ Check

Name (as on credit card):_____

Account Number:_____ Expiration date: ___/ ___Verification code: _-_____

Statement Billing Address:_____

City:_____ State / Province: _____ Zip:__ _____Country:_____

Signature_____

Refund Policy*: Cancellations received by October 30, 2020 will receive a 50% refund. After this date, there will be no refunds, however name changes are permissible. There will be no transfer of funds to the next course permitted.*