

Present

Quality Control/Quality Assurance of

# Deep Foundations

1 day Seminar and

# PDA Training and Proficiency Test

2 day Workshop



16-18 May 2018 | NOVOTEL | PARIS LA DEFENSE

2 Boulevard de Neuilly | Paris La Defense 1 Cedex | 92081 | La Defense | France

## Who Should Attend?

### Day One

This one-day seminar is suitable for those in the field of deep foundation testing and analysis, and includes an overview of recent advances in non-destructive testing methods (load testing and integrity testing) of bored piles and driven piles. It is also suitable for:

Consultants, owners, contractors and governmental officials who specify testing of deep foundations

Geotechnical, structural and construction engineers

Student and professors involved in the design, construction and specification of deep foundations

### Days Two & Three

Users of the Pile Driving Analyzer® (PDA) system and CAPWAP® software interested in sharpening their skills.

Engineers, foundation testing professionals, students and professors already familiar with the basic concepts of deep foundation dynamic testing and analysis.

Professionals who desire to have a basic understanding of the dynamic test results being presented to them.

Those interested in taking the **Dynamic Measurement and Analysis Proficiency Test\***

Those attending the two-day workshop are strongly encouraged to review the wave equation background materials.

## Learning Outcomes

### Day One

At the end of the one-day seminar, attendees should be able to:	Understand basic concepts of various field testing applications including static tests, dynamic tests and other NDT methods (e.g. crosshole sonic logging, low strain integrity testing, thermal integrity profiling, calipers, and other inspection devices)
	Learn the advantages and limitations of various integrity and capacity methods in assessing bored piles and driven piles and choose the appropriate methods for analysis.
	Understand basic concepts of PDA testing and advancements in dynamic load testing of bored and driven piles.

### Days Two & Three

At the end of the two-day workshop, attendees will be able to:	Operate the PDA in a manner conducive to acquiring good quality data
	Assess pile bearing capacity, pile driving stresses, hammer performance and pile integrity by various methods
	Avoid pitfalls when analyzing PDA data with the CAPWAP software
	Interpret PDA testing and CAPWAP software results
	Describe the soil-model used in CAPWAP
	Prepare the input for CAPWAP
	Review options for CAPWAP analysis and output
	Calculate bearing capacity and its distribution for driven piles from impact records

## Agenda

### Day One - QA/QC for Deep Foundations

08.00	Registration
08.30	QA/QC of Deep Foundations (pre- or during installation) Overview - Why do we test? PIR SQUID - testing of bottom cleanliness SHAPE – electronic calipers Basic Wave Mechanics PIT
10.30	Break
10.45	QA/QC of Deep Foundations (post installation) Thermal Integrity Profiling Introduction and theory TIP Examples and TIP-Reporter
12.15	Lunch
13.00	CSL and PDI-TOMO
13.45	Load Testing of Deep Foundations-Brief Discussion Dynamic Testing
15.00	Break
15.15	Importance of monitoring driven piles PDA testing of Bored and CFA piles- Brief Discussion Economics of testing Static Load Testing Options PDM
17.00	Adjourn



## Agenda

### Day Two - PDA Training

08.30	Wave Mechanics for PDA Testers
10.00	Break
10.15	PDA-8G and PDA-S
12.15	Lunch
13.00	PDA Testing – Proper Practices
15.15	Break
15.30	Dynamic Testing of Drilled Shafts and Augered Piles
17.00	Adjourn

### Day Three - PDA Training

08.15	Integrity, Stresses, Energy
09.00	Capacity Calculation
09.45	CAPWAP Background
11.15	Break
11.30	CAPWAP Examples
13.00	Lunch
13.45	Case Study: G-Octopus Offshore & Onshore PDA Testing in Europe and Surrounding Areas
14.15	PDA Data Quality Examples
15.15	Break
15.30	<b>Dynamic Measurement and Analysis Proficiency Test*</b>
17.00	Adjourn

A Certificate of Participation documenting the number of hours of instruction (PDH) will be provided. Check with your engineering board of registration for their continuing education requirements.

At the end of the Workshop participants may take a multiple choice Dynamic Measurement and Analysis Proficiency Test which will take less than 1.5 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](mailto:softwaresales@pile.com) in advance of the test date. For more information about the Proficiency Test website: [www.PDAProficiencyTest.com](http://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



**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.



**Anna Sellountou, PhD, P.E.** received her five-year Civil Engineering Degree from The National Technical University of Athens, Greece in 1999, and her PhD from the University of Houston in 2004, under the supervision of Professor M.W. O'Neill, one of the world's leading experts in Deep Foundations. She began her career at Fugro in Houston, TX, where she worked on diverse domestic and international projects, including numerous LNGs and Bridges. In 2012, she joined Pile Dynamics, Inc, where she was involved with R&D and product development. Since late 2016, Anna has supported PDI's technical and business-related activities throughout Europe, Middle East and Africa from her base office in Greece. Anna serves in various committees in DFI, ACI, PDCA, ASTM where she is highly involved with specifications and codes revision activities.



**Alexandre Crochelet**, is a senior engineer, in G-Octopus. He has a MSc in Engineering Geology from Franche-Comté University in Besançon in France and has achieved Advanced level on the PDCA/PDI Dynamic Measurement and Analysis Proficiency Test. After several years performing the entire range of services offered by G-Octopus in France and abroad for onshore and offshore projects, Alexandre is currently Operation Manager of G-Octopus.



**Iman Haghighi, PhD**, obtained his MSc (diplôme d'ingénieur) in Civil Engineering and Construction from École des Ponts ParisTech in 2009 and his PhD in Geotechnical Engineering from Université de Paris-Est, France in 2012. He has an Advanced level in PDCA/PDI Dynamic Measurement and Analysis Proficiency Test. He has worked for Saipem S.A, France and since 2012 for Cathie Associates. He provides foundation design and pile installation engineering courses to private companies and lectures at ESITC Caen. He has contributed to several research projects, offshore and maritime structures site investigation, foundation design and pile installation.

## Registration

Limited number of participants. Please complete the below registration and return via email to [info@g-octopus.fr](mailto:info@g-octopus.fr) by **Wednesday May 2, 2018**.

### Registration Form

Name(s)	
Organisation	
Address	
City	
State/Province	
Postal Code	
Country	
Phone	
Fax	
Email	

Registration Fees (includes course notes, breakfast, AM/PM breaks and lunch):	Cost	Selection
One-Day Seminar	€200.00 / \$240	<input type="checkbox"/>
Two-Day Workshop	€550.00 / \$660	<input type="checkbox"/>
One-Day Seminar plus Two-Day Workshop	€650.00 / \$780	<input type="checkbox"/>
Dynamic Measurement and Analysis Proficiency Test	€200.00 / \$240	<input type="checkbox"/>

Amount: Programme total	€/\$
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*If you do not pass the test you are allowed one (1) retake of the test at no additional charge at the next course.*

## Payment by Wire Transfer

### For Payments in EUROS

Bank Name	Crédit Mutuel
Bank	10278
Account	00032187745
IBAN	FR76 1027 8030 3600 0321 8774 589
BIC	CMCIFR2A
Account Owner	G-Octopus, 177 Avenue Georges Clemenceau, 92000, Nanterre
Bank Address	CCM RIXHEIM, 7 Av Du Gal De Gaulle, BP 108, 68172 Rixheim Cedex

### For Payments in USD

Bank Name	Crédit Mutuel
Bank	10278
Account	00032187701
IBAN	FR76 1027 8030 3600 0321 8770 127
BIC	CMCIFR2A
Account Owner	G-Octopus, 177 Avenue Georges Clemenceau, 92000, Nanterre
Bank Address	CCM RIXHEIM, 7 Av Du Gal De Gaulle, BP 108, 68172 Rixheim Cedex

## Additional Information

Hotel Reservations: Attendees should make their own hotel reservations.

Refund Policy: Cancellations prior to three weeks before the event would receive a 50% refund.

For more information, including any technical information please contact [subscribe@g-octopus.fr](mailto:subscribe@g-octopus.fr)