

# Online Course on QA/QC OF DEEP FOUNDATION TESTING

Indian Institute Of Science Bangalore

In Collaboration With

Taqell Edification Pvt. Ltd

(Authorised Representative of Pile Dynamics Inc. USA)

Brings You



## AN EXCLUSIVE ONLINE SESSION ON DEEP FOUNDATION TESTING

Deep foundations are the backbone of modern infrastructure. Ensuring quality and integrity is paramount to the safety and longevity of structures. This comprehensive online workshop, organised by The Department of civil engineering faculty, Indian Institute of Science Bangalore, through Centre for Continuing Education, in collaboration with Taqell Edification Pvt. Ltd, provides an in-depth understanding of Quality Assurance and Quality Control (QA/QC) methods for deep foundation testing.

The Faculty will equip you with the practical knowledge and skills needed to effectively assess, analyze, and interpret deep foundation tests, including static, dynamic, and non-destructive testing methods.

## COURSE COORDINATORS

Dr. G.L. Sivakumar Babu – Professor, IISc Bangalore.

Dr. C.R. Parthasarathy – Founder & CEO, SGES & Taqell Edification Pvt. Ltd

## LEARNING OBJECTIVES

- Quality Control & Risk Mitigation during pile construction.
- Bidirectional Load Testing & Pile Instrumentation – Gain valuable insights.
- Pile Integrity Assessment Methods - Learn their advantages and limitations.
- High strain dynamic load testing- understanding advancement in the field
- Pile driving analyser (PDA) Operation – Perform data acquisition, quality assessment, interpretation, and application of results.
- Pile Bearing Capacity & Structural Integrity–Assess stresses, hammer performance, and overall integrity.
- CAPWAP Analysis – Prepare inputs and review analysis options effectively.

## WHO SHOULD ATTEND?

- Geotechnical, Structural, and Construction Engineers.
- Project Managers and Owner's Representatives.
- Consultants, Owners, Contractors, and Government Officials. Students,
- Researchers, and Faculty involved in deep foundations.
- Users of PDA systems and CAPWAP software.
- Professionals seeking a basic understanding of dynamic test results.



## KEY BENEFITS

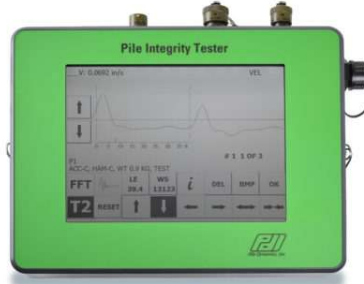
- Learn from experts with extensive practical experience.
- Gain hands-on knowledge through practical case studies.
- Enhance your understanding of advanced testing methods.
- Improve your ability to interpret and analyze complex test data.
- Network with professionals in the field.
- Receive a certificate of participation from IISc Bangalore Centre for Continuing Education.

## COURSE CONTENT

- Pre-Training Assessment – Evaluate your existing knowledge.
- Importance of Geotechnical Investigation in deep foundation projects.
- Introduction to Deep Foundations:
  - Design Philosophy
  - Construction Methods
  - Testing Overview
- Challenges, Risks, and Mitigation during pile foundation construction.
- QA/QC Before Concrete Pouring:
  - SHAPE & SQUID methods.
- Bidirectional Load Test:
  - Methodology, Test Process
  - Data Acquisition, Interpretation & Presentation
- Static Load Test with Instrumentation:
  - Data acquisition & interpretation.



- **Pile Integrity Testing**  
**Methods: Low Strain Pile Integrity Test, Cross Hole Sonic Logging Test, Thermal Integrity Profile**



- **High Strain Dynamic Test (HSDT):**  
**Wave Mechanics: Theory & Application**  
**Proper Practices: Data Interpretation & Quality Assessment**  
**CAPWAP: Theory & Software Application with Examples**



- **Correlation Studies – Between different load test methods.**
- **Post-Training Assessment – Evaluate your learning.**
- **Q&A Session, Feedback, and Conclusion.**

- **All participants will be issued a 20-hours of PROFESSIONAL DEVELOPMENT HOURS (PDH) CERTIFICATE**

### **COURSE SCHEDULE**

**Dates: May 19th - 30th, 2025 (Monday-Friday)**

**Time: 5:30 PM - 7:30 PM (IST)**

**Platform: Online - 12 Session**

**Fees: Rs 20000/- + 18 % GST**

### **FOR MORE INFORMATION:**

**Centre for Continuing Education,  
Indian Institute of Science,  
Bengaluru, 560012, Karnataka,  
India**

**Phone: +91 080 2293 2055/2247/2491**

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