



Indian Institute of Technology Madras



INDIAN GEOTECHNICAL SOCIETY, CHENNAI CHAPTER

Seminar

On

Wave Equation Analysis of Pile Driving Methodology and Performance

Seminar Hall, Civil Engineering Department, Indian Institute of Technology, Chennai

(Jointly organised by IGS Chennai, IIT Chennai, PDI Inc USA and Earth Product India Pvt. Ltd)

Chennai, 25 June 2008

10:00 hrs to 17:00 hrs

First announcement and invitation

Objective

The objective of the Seminar is to provide the wave equation approach for analysis of impact pile driving. **Pile integrity tests and the dynamic tests** are the methods for assessing the condition of **piles** or shafts. It is cost effective and not very time consuming.

Participants

The Seminar is directed at consultants, contractors, academia, students and end-users of pile testing, those who are participating in decision making, preparing recommendations for decision makers, and those who are using or are supposed to use this kind of instruments. The target group consists of policy makers in industries, provincial governments, relevant officers in affected cities, representatives from academic field, testing and training organisations etc.

Venue

The venue of the Seminar is Seminar Hall, Seminar Hall, Civil Engineering Department, Indian Institute of Technology, Chennai

Language

The Seminar language is English.

Registration

To register your interest and to receive updates of the announcements and the final Seminar Programme, send the attached pre-registration form by post or E-mail to the address given below. Participation in the Seminar is **free of charge**.

Programme

A tentative Seminar Programme is given below.



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Draft Programme of the Seminar

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| Time | Presentation |
|--------------|---|
| 10.00 | Welcome and introduction to the seminar <ul style="list-style-type: none">- background to the Seminar, why the audience has been invited to the seminar |
| 10.10 | Pile Integrity Testing (PIT) by Dr.Frank Rausche, PDI Inc. <ul style="list-style-type: none">- introduction to low strain testing of piles and Pile Integrity Tester |
| 10.45 | Question Answer Session <ul style="list-style-type: none">- QA on PIT |
| 11.15 | Tea/Coffee break |
| 11.30 | Dynamic Testing of Piles by Dr.Frank Rausche , PDI Inc. <ul style="list-style-type: none">- introduction to dynamic testing of piles and PDA |
| 12.30 | Question Answer Session <ul style="list-style-type: none">- QA on PDA |
| 13.00 | Lunch |
| 14.00 | Pile Testing and Cross Hole Analyzer by Dr.Frank Rausche,PDI Inc. <ul style="list-style-type: none">- Methods for testing of piles by cross hole method |
| 14.30 | Question Answer Session <ul style="list-style-type: none">- QA on CHA |
| 14.45 | Tea/Coffee break |
| 15.00 | Presentation by the user of PDI instruments in India and their experience |
| 16.00 | Either site visit or demo of instrument |



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Registration form

First name:

Name:

Organisation:

Address:

Post code/City:

Country:

Telephone:

Telefax:

E-mail:

Please send this registration form to the address:

Avijit Saha

Manager Operations

Earth Products India Pvt Ltd

E-46/7, Okhla Phase-II, 2nd Floor

New Delhi-110020

Ph: 011-49503135/36

Mob: 9971558578

Website: www.epc.com.hk

or send it by email to the address:

avijit@epc.com.hk



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A BRIEF ABOUT PDI AND Dr. FRANK RAUSCHE

In 1964, Professor George Goble (with the later assistance of graduate students Frank Rausche and Garland Likins) began a research project at Case Institute of Technology (now Case Western Reserve University) in Cleveland, Ohio. The research focused on an electronic device that would display, for each hammer blow, the bearing capacity of a pile. The Ohio Department of Transportation was interested in new technologies of pile testing and funded the effort. Dynamic Load Testing or High Strain Dynamic Testing according to the Case Method, as the methodology is now called, was seen as a viable supplement or alternative to conventional Static Load Tests.

In 1972, the Journal of Soil Mechanics and Foundations Division of the American Society of Civil Engineers published a seminal paper by Frank Rausche, Fred Moses (also a Case professor at the time) and George Goble: Soil Predictions from Pile Dynamics. Also in 1972, Dr. Goble formed a company named Pile Dynamics, Inc. to transfer the new technology tools required to perform dynamic pile testing to the deep foundations industry. This technology consisted of the Pile Driving Analyzer®, and its associated signal matching software today known as CAPWAP®.

To this day PDI remain committed to advancing the art of testing and quality assurance for deep foundations through research and innovation. Pile Dynamics, Inc continues to focus on the manufacture and improvement of foundation monitoring and testing equipment. It has grown and expanded its product line considerably since its inception.

Dr. Rausche is one of the pioneers of pile testing in the world. He, along with Professor George Goble and Mr. Garland Likins, began a research project at Case Institute of Technology (now Case Western Reserve University) in Cleveland, Ohio in 1964. The research focused on an electronic device that would display, for each hammer blow, the bearing capacity of a pile. He is also one of the founders of GRL Engineers, Inc with more than 40 years of pile testing experience.