



## GeoSS – BCA Geotechnical Seminar Series

# 1-Day Seminar on Good Practices of Pile Load Testing and Use of Pile Load Test Results to Improve Pile Design

## Introduction

Singapore has the record of having the largest total length of pile installed or driven into the ground per capita. Kentledge, a conventional method of static pile load test, is commonly used in Singapore to verify the functionality of pile foundations installed at construction sites. With increasing construction activities in heavily built-up areas of Singapore, it is important that the pile load tests are performed with good design and installation practices so that any potential accidents could be avoided and public safety is ensured. Pile load tests also provide a set of results which could be used to improve the design of pile foundations.

## Objective

This seminar, jointly organised by Geotechnical Society of Singapore (GeoSS) and BCA Academy, will present good practices of pile load testing that will ensure safety of piling works. In this seminar, piling specialists, pile-testing experts and regulators such as BCA, LTA and MOM will share their expertise in various aspects of piling and pile load test practices.

## Seminar Topics

### 1. Functions of Pile Load Tests and Use of Load Test Results to Improve Pile Design *by Prof Leung Chun Fai, National University of Singapore*

Prof CF Leung will present the objectives of pile load test, various methods of carrying out the test and the use of load test results to improve pile design.

### 2. Singapore History of Pile Load Testing using Concrete Kentledge *by Er Foo Hee Kang, Resource Piling Pte Ltd*

The speaker will present a brief history and trends of pile load testing in Singapore from 1980s to present. He will also highlight some good practices and critical considerations on Kentledge load test from design stage to construction stage using case-studies.

### 3. Pile Load Testing using Steel Kentledge in Restricted Areas *by Mr Eric Low Keng Suan, Zap Piling Pte Ltd*

Mr Eric Low will present an alternative method of pile load test using steel Kentledge which is suitable for testing piles in restricted areas.

### 4. Review of Risks associated with the Conduct of Pile Load Tests *by Dr Veeresh Chepurty, Land Transport Authority*

The speaker will discuss the risks associated with pile load tests and the various mitigation measures adopted to ensure safety. He will also highlight some of the special design considerations that are relevant to pile load tests that use dead weights and are conducted near existing buildings.

### 5. Roles of a Qualified Person (QP) in Pile Load Tests *by Dr Yet Nai Song, BCA*

Pile load tests are useful tools to a Qualified Person (QP) who designs and supervises the piled foundation. Dr Yet will discuss the key roles of a Qualified Person (QP) in pile load tests from the perspective of Building Control Regulations. He will also highlight some good practices in pile load tests that help QP to fulfil these roles.

### 6. Alternative Method of Pile Load Testing *by Thomas Molnit, Bauer (M) Singapore*

The speaker will present various methods of static load testing for large capacity deep foundations such as bored piles and barrette piles. He will also highlight safety and automation aspects of the load test methods.

### 7. Importance of Site Supervision during Pile Load Testing *by Dr Lim Ken Chai, Trittech Pte Ltd*

Dr Lim will present the importance of site supervision during pile load testing. He will also discuss checklists that are used during the pile load testing.

### 8. Safety Aspects of Pile Load Tests *by Mr Lim Shiyi, Ministry of Manpower*

The speaker will present Workplace Safety & Health Act & Regulations with focus on clauses related to pile load testing. He will also highlight case-studies of accidents related to pile load testing and possible future trends in the development of safe practices.

### 9. Safe Pile Load Testing Practices in CSC *by Er Jimmy Lim, CSC Holdings Ltd*

Er Jimmy Lim will present pile load testing practices adopted in CSC.



## Details

Date: 27 September 2011

Time: 9.00am to 5.30pm

(Registration starts at 8.30am)

Venue: Function Hall, BCA Academy

Fee (Inclusive of GST):

S\$192.60 (GeoSS members)

S\$214.00 (Non-members)

Refreshments and lunch will be provided.

*Note: Online registration is only available for participants who are paying full fee. Participants who are eligible for member fee need to download the application form and fax your application to: 62580558. Cheques with original application should be mailed to: BCA Academy, 200 Braddell Road, Singapore 579700.*

## Accreditation

PEB - 6 PDUs

MOM-CPD - Pending

IES & ACES - 6 STUs

## Target Audience

- Practicing Engineers
- Builders
- Geotechnical Specialists
- Piling Specialist Builders
- Supervisory Personnel
- WSH Personnel
- Academics
- Students

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## Profile of Speakers

**PROF C F LEUNG** is currently a professor with the Department of Civil and Environmental Engineering at the National University of Singapore. He has published widely in international journals and conferences in his specialised field of geotechnical engineering. Prof. Leung is a Chartered Engineer of UK and a Professional Engineer (Geotechnical Specialist) in Singapore. He has served as geotechnical consultant to many governments and private sector construction projects in Singapore and Southeast Asia.

**ER FOO HEE KANG** is the founder and the managing director of Resource Piling Pte Ltd. He manages the company for the past 21 years. He is a Professional Engineer. He is also a senior member of Institution of Engineer Singapore.

**MR ERIC LOW KENG SUAN** is a project director of Zap Piling Pte Ltd. He has been working in the piling industry for 25 years. He obtained his B.Eng from the University of Glasgow and M.Sc from the National University of Singapore.

**DR VEERESH CHEPURTY** is a senior engineer at the Civil Design Division of Land Transport Authority. He obtained his PhD in Marine Geotechnical Engineering from the Indian Institute of Technology, Madras. He has wide experience in analysis, design and project management of large civil engineering projects in Singapore, Malaysia, Taiwan, Hong Kong, Australia, Vietnam, Sri Lanka and India.

**DR YET NAI SONG** is a senior executive geotechnical specialist with Building and Construction Authority. He has more than 15 years of experience in the geotechnical engineering field. He is a registered PE (Geo) and AC (Geo) in Singapore. He has

published papers in international conferences and journals and conducted seminars related to foundation engineering.

**MR THOMAS MOLNIT** is a tender and marketing manager at Bauer (M) Singapore. He also provides technical assistance for Bauer's load testing in the Asian region. He has more than 16 years of experience working in the geotechnical engineering at various countries including Singapore, USA and Middle East. He obtained his Master of Civil Engineering degree in Geotechnical Engineering from the University of Florida.

**DR LIM KEN CHAI** is an executive director of Tritech Consultants Pte Ltd. His engineering experiences are in infrastructure master planning, deep excavations, tunneling, soil-structure numerical analysis and instrumentation interpretation. Dr Lim also has vast experiences in environmental baseline reporting, impact assessment and reviewing for various petrochemical and manufacturing industries.

**MR LIM SHIYI** is a specialist at Ministry of Manpower. He has published papers in geotechnical related international conferences. He obtained his B.Eng (Civil) with 1st class Honours and M.Sc (Civil) with Geotechnical Specialization from Nanyang Technological University. He is also a council member of the Institution of Engineers Singapore (IES).

**ER JIMMY LIM** is the Group Chief Operating Officer of CSC Holdings Ltd. He is a Professional Engineer and a Specialist PE(Geo). He has been involved in piling works since 1984 as a Civil Engineer in HDB and has more than 25 years of experience in foundation engineering like barrettes, bored piles, driven piles and jack-in piles.

## Registration Form - 1-Day Seminar on Good Practices of Pile Load Testing and Use of Pile Load Test Results to Improve Pile Design

Event Code: 77077

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Time: 9.00am to 5.30pm

Venue: Function Hall, BCA Academy

Fee (Inclusive of GST):  S\$192.60 (GeoSS members)

S\$214.00 (Non-members)

Refreshments and lunch will be provided.

Name of Participant	NRIC/Passport No	Designation	HP no.	Email

Yes, I would like to receive course - seminar updates via email  PEB  MOM-CPD  IES & ACES Please tick accordingly

Company Name:  Company UEN No.:

Mailing Address:

GeoSS member No.:

### Contact Person Particulars

Name: (Dr/Mr/Mrs/Ms)  Email:

Designation:  Hp no.:

Telephone No.:  Fax no.:

### Payment

Enclosed is a cheque no. \_\_\_\_\_ (Cheque should be crossed, marked "account payee only" and payable to 'BCA Academy') for S\$ \_\_\_\_\_

OR Deduct from GIRO acc. No \_\_\_\_\_

(should be the same bank account number as indicated in the Direct Debit Authorisation form submitted to BCA)

.....  
Name/Signature (\*Company / individual applicant)

Company Stamp  
(For company application)

Reservation may be made by fax, e-mail, post or by hand. To confirm the reservation, payment will have to be made before the seminar date via cheque, VISA or Nets/cash. No invoice will be issued. Walk-in applicants will only be admitted on the basis of seat availability and full payment. Please inform us in writing of any change in your registration, which is subject to administrative charges as shown below:

#### Request for Replacement and/or Withdrawal

- Request for replacement in writing, must reach BCA Academy before the commencement date of the seminar: No administrative charge
- Request for withdrawal in writing, that reaches BCA Academy at least 2 weeks before the seminar date: 90% refund of seminar fee.
- Request for withdrawal in writing, that reaches BCA Academy less than 2 weeks but more than 3 working days before the seminar date: 75% refund of seminar fee.
- Request for withdrawal in writing, that reaches BCA Academy 3 working days or less before the seminar date: No refund of seminar fee.

BCA Academy reserves the right to amend the seminar details or cancel the seminar and fully refund the participants should unforeseen circumstances warrant it.

### Enquiries

For enquiries, please call 6248-9999 / 6248-9843 or email us at [bca\\_academy@bca.gov.sg](mailto:bca_academy@bca.gov.sg)

For details of other seminars and courses, please visit our website @ [www.bcaa.edu.sg](http://www.bcaa.edu.sg)

### Registration

Seats are limited, registration is on a first-come, first served basis. Training places will be confirmed upon the payment of the seminar fees before the commencement date. Please fax application form to 6258-0558. Cheques with original application and supporting documents should be mailed to **BCA Academy, 200 Braddell Road, Singapore 579700**

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