



Short Course on The Use of Cone Penetration Testing in Daily Practice



Date: 11 January 2019
Venue: National Library Building,
Imagination Room
PDU/STU: TBA

COURSE SYNOPSIS

Cone Penetrating Testing (CPT) is a rapidly developing and well-studied method of Ground Investigation (GI) across the world. Although widely deployed on reclamation projects in Singapore, use of the technique is not a common practice in the general geotechnical/construction industry where more rudimentary, and often far less productive, methods such as SPT are still preferred. Moreover, the use on reclamation projects is mainly driven by the need for compaction control, a relatively limited part of the CPT's capabilities. Such usage does not take advantage of the technique's excellent data resolution and sensitivity which allow high level interpretation with a rapidly acquired data set.

This short course focusses on the basics of CPT, the practical use, the data obtained, operational challenges and sources for error. In addition, it will discuss ongoing and future projects and highlight the challenges posed by limited understanding of the technique and poor specifications. Such limitations are preventing full utilization of the technique and creating higher costs and lower production, damaging the use of CPT in Singapore.

This course is ideal for those professionals new to CPT as well as those who wish to further their understanding and get the most out of their CPT operation.

REGISTRATION FEES

GeoSS members	S\$120
Non-members	S\$150

Limited seats available!
REGISTER NOW

All registrations are on a first-come-first-served basis upon receipt of full payment. Invoice will be issued upon receipt of payment.
Cancellation Policy: GeoSS reserves the right to cancel event without prior notice due to unforeseen circumstances. There will be no refund in the event of no-show or cancellation by the participant. Name change allowed.



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Ernst Wassenaar started working in the CPT industry in 1991 for Conewel B.V., a small manufacturer of CPT electronics that in 1996 merged with the Gouda Machine Factory to become Geomil Equipment B.V.

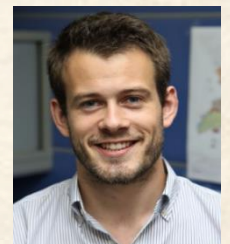
With a background in electronics, Ernst stepped up the ranks to the position of technical director while becoming one of the partners in the company.

In 2014 he then took up the challenge of moving to Malaysia to start a regional office for the ever-growing markets in this part of the world. In his current role, Ernst acts as Regional Manager for Asia-Pacific.

William Bond is a Technical Manager for Geomil Equipment based in Hong Kong. A geologist, William graduated from the University of Leicester as a Master of Geology (MGeol) before joining Cone Penetration Testing (CPT) specialist contractor, Lankelma, as a Project Engineer.

William moved to Hong Kong in 2015 to take on the role of Engineering Geologist with Intrafor working at a project management level on CPT projects as well as in Horizontal Directional Drilling (HDD) and Horizontal Directional Coring (HDC).

William joined Geomil as a Technical Manager in 2017 to boost CPT support and understanding in the region.



Chu Jian is a professor in geotechnical engineering at the School of Civil and Environmental Engineering, Nanyang Technological University (NTU). He is the Director of the Centre for Usable Space and the Interim Co-Director of the NTU-JTC Industrial Infrastructure Innovation Centre at NTU. He also worked for Iowa State University, USA, from 2011 to 2014 as professor and James M. Hoover Chair in Geotechnical Engineering. Prof Chu is currently the Vice Chair for ISSMGE TC217 on Land Reclamation and a Committee Member for ISSMGE Technical Committee TC211 on Ground Improvement. He was the Inaugural Chair for ISSMGE TC39 on Geotechnical Engineering for Disaster Mitigation and Rehabilitation from 2005 to 2009. His research interest includes lab and in-situ testing, soil properties, soil improvement and land reclamation. Prof Chu has delivered over 60 keynote or invited lectures at international conferences. He has also involved in a number of construction projects as a consultant in Singapore and overseas. He developed the Geo-Env-Mobility Measuring and Monitoring (GEM3) Mobile Station at NTU.

He Zhi Wei is the design manager of Keller Foundations (S E Asia) Pte Ltd. He graduated with B. Eng in hydraulic engineering from Tsinghua University, Beijing, China. He obtained his PhD from the National University of Singapore. He has more than 10 years of experience in Geotechnical Engineering, having involved in the design and execution of many ground improvement and foundation works, such as Punggol waterway, LanXess chemical plant & Jurong Shipyard hull workshop in Singapore, VALE iron ore storage yard in Malaysia, Nghi Son large diameter storage tanks in Vietnam, etc.



Leong Kam Weng graduated with B.Eng (First Class Honour) in Civil Engineering from University of Malaya, Malaysia. He obtained his PhD from the National University of Singapore. He has more than 20 years of experience in Geotechnical Engineering. He has been active in the design and execution of Ground Improvement projects in South East Asia (ASEAN) for Keller like Exxon Mobil SPT in Singapore and KVMRT project in Malaysia. He is currently the Director of Keller Foundations (S.E. Asia) Pte Ltd and is heading the Ground Improvement business in ASEAN. He is a member of the Geotechnical Society of Singapore (GeoSS) since 2008 and served as committee member since 2012 and Vice President for 2014-15. He is the Immediate Past President of GeoSS for 2016-17.



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Time	Session
8:30 AM	Registration
9:00 AM	Why use CPT? <ul style="list-style-type: none"> ▪ History and technical progress ▪ Working principle and terminology ▪ Advantages and limitations of the CPT ▪ Use of data and parameters obtained Operations and applications <ul style="list-style-type: none"> ▪ Typical applications ▪ Operational considerations; what equipment to use? ▪ What sort of machinery is available and project suitability? ▪ Advantages and constraints of various systems
10:30 AM	Tea Break
11:00 AM	Measuring Technology and Data Quality <ul style="list-style-type: none"> ▪ Sensor technology ▪ Cone selection and effects ▪ Sources of error and warning signs
12:30 PM	Lunch
1:30 PM	Data Processing and Interpretation <ul style="list-style-type: none"> ▪ Derived parameters ▪ Factors affecting data ▪ Data interpretation ▪ Standards and specifications
3:00 PM	Tea Break
3:30 PM	Case Studies in Singapore <ul style="list-style-type: none"> ▪ For Clay: determination of undrained shear strength, shear modulus and coefficient of consolidation ▪ For Sand: relative density, friction angle and shear modulus
5:00 PM	Q&A Session



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Registration Form

Salutation (Please circle): Prof / Dr / Mr / Ms

Family Name: _____ Given Name: _____

Name to be printed on Cert: _____

Organization: _____ Designation: _____

Mailing Address: _____

Postal/Zip Code: _____ Country: _____ PE/RE/RTO No: _____
(Please circle one)

Email: _____ Dietary Requirement: _____

Telephone: _____ Mobile: _____ Fax: _____

Payments are to be made in **Singapore dollars (S\$)** as quoted below:

Registration Fees	<input type="checkbox"/> GeoSS Members: SGD \$120.00	<input type="checkbox"/> Non-GeoSS member: SGD \$150.00
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Method of Payment

CASH
Please make cash payment at the Secretariat Office before 3 January 2019.

CHEQUE / BANK DRAFT made payable to **“Geotechnical Society of Singapore”**

Cheque No: _____ Issuing Bank: _____

CREDIT CARD
Please visit <https://e.cma.sg/geoss11jan2019/>

Applicant's Signature: _____ Date: _____

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Please send your completed registration form and registration fees to:

Geotechnical Society of Singapore, 1 Liang Seah Street #02-11 Liang Seah Place, Singapore 189022

Tel: 6336 2328 | Fax: 6336 2583 | Email: geoss@cma.sg | Website: www.geoss.sg