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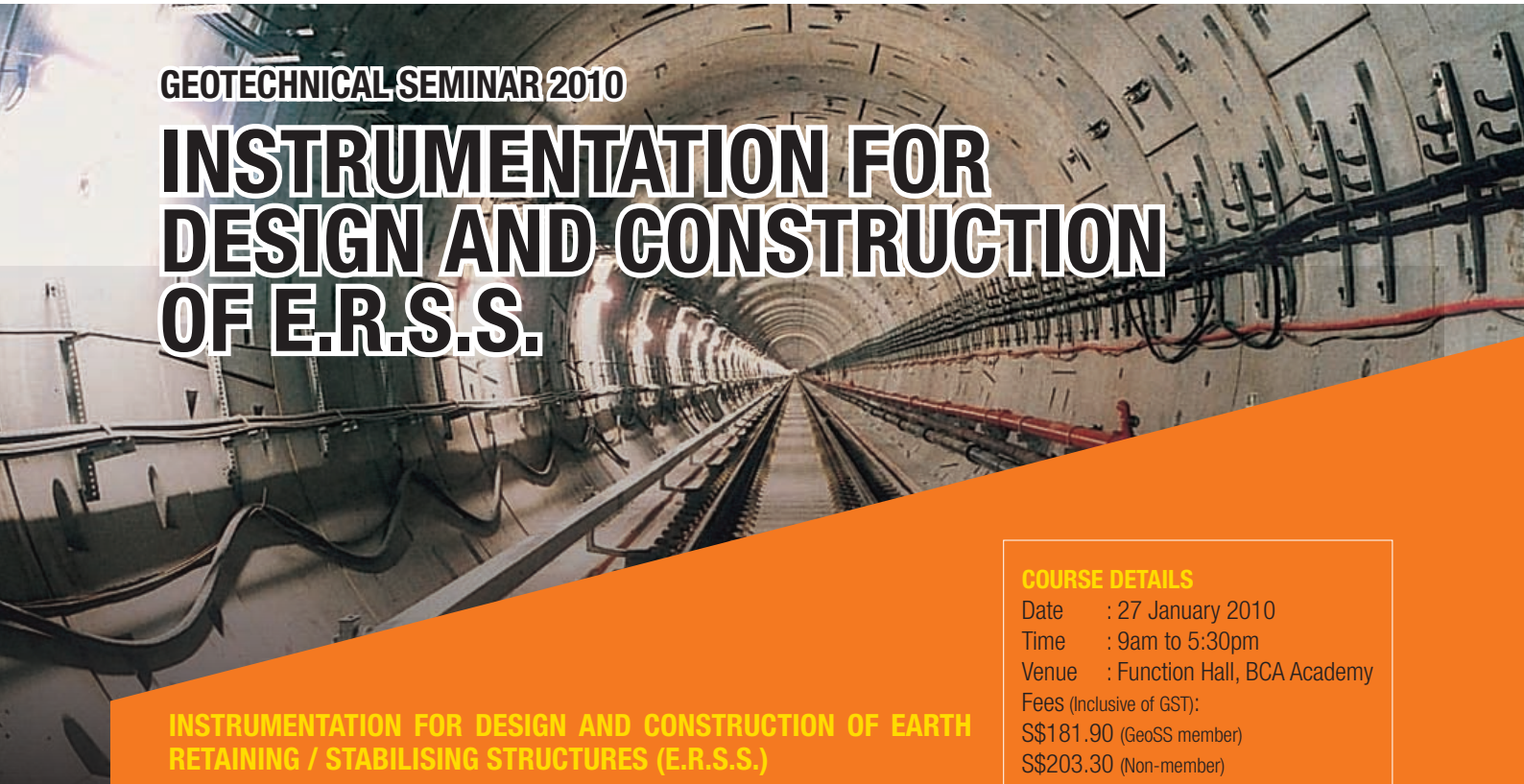

GEOTECHNICAL SEMINAR 2010

INSTRUMENTATION FOR DESIGN AND CONSTRUCTION OF E.R.S.S.

INSTRUMENTATION FOR DESIGN AND CONSTRUCTION OF EARTH RETAINING / STABILISING STRUCTURES (E.R.S.S.)

Geotechnical instrumentation plays a crucial role in the construction industry. It is an important tool for engineers to verify their designs and ensure work safety. With the recent codification of Geotechnical Engineers' practices covering instrumentation and monitoring, the topic of Geotechnical Instrumentation needs closer attention. This seminar aims to cover topics on good practices of instrument works, the advancement and challenges of geotechnical instrumentation. Industry experts will be at hand to share their knowledge, experience and expertise.

COURSE DETAILS

Date : 27 January 2010
Time : 9am to 5:30pm
Venue : Function Hall, BCA Academy
Fees (Inclusive of GST):
S$181.90 (GeoSS member)
S$203.30 (Non-member)
Refreshment and lunch will be provided.

POINTS

PEB: *Pending*

EXPERIENCE GAINED FROM MAJOR DEEP EXCAVATION & TUNNEL PROJECTS IN CCL

The Circle Line (CCL), one of LTA's major infrastructure projects, is approximately 33 km long with 29 stations and runs through some of the busiest corridors in the city. To ensure construction safety, instrument-based ground monitoring systems have been implemented by specialist contractors appointed directly by LTA. This talk, delivered from an instrumentation specialist contractor's point of view, will share the practical experiences obtained from the CCL project.

Dr Cai Jun Gang
Tritech Engineering & Testing (S) Pte Ltd
Dr Cai is currently an Executive Director of Tritech Engineering & Testing (Singapore) Pte Ltd. He has over 20 years of experience in engineering geology, rock engineering & geotechnical engineering R&D, consultancy and project management, and has published more than 100 technical papers in scientific journals and conference proceedings.

REAL TIME MONITORING OF GEOTECHNICAL INSTRUMENTS

This talk will focus on real time monitoring of instruments that enables engineers to receive timely data and help them to make crucial judgment when the need arises. Real time instrumentation experience from projects that range from cut and cover system to NATM mining methods in Singapore and Taiwan will also be highlighted.

Mr Johnny Huang
SGW Engineering Services, Taiwan
As a registered Professional Civil Engineer in Taiwan, Mr Huang has developed his own proprietary software for real time instrumentation monitoring for the development of Taiwan High Speed Rail. He is now the Managing Director of Geotech Science, Taiwan and technology partner of SGW Engineering Services in providing geotechnical instrumentation services in all of Asia.

CHALLENGES AND IMPROVEMENTS IN REAL TIME MONITORING & ALERT SYSTEMS

In Real Time Monitoring & Alert systems where the sensor readings reach the users in the shortest time, a System Engineering approach will ensure data quality. The data flow must minimise any possible human errors and delays. However, when it is fully automatic, new challenges need to be anticipated to ensure quality. Practical challenges and improvements on the Real Time Monitoring & Alert Systems will be addressed in this presentation.

Dr Tan Guan Hong
SysEng (S) Pte Ltd
Dr Tan graduated from Sheffield University, UK with B.Eng (1976) and Ph.D. (1979). He worked in Philips Electronics from 1980 to 1993. In 1994, Dr Tan started SysEng to develop Automated Measurement Systems in various industries. Since then, Dr Tan has developed and implemented many Real Time Monitoring Systems for Geotechnical & Structural Instruments using Wire-less and Internet Technologies.

PRACTICES AND CHALLENGES IN INSTRUMENTATION FOR EXCAVATION

The instrumentation and monitoring system for excavation works is very important for geotechnical design verification and safe construction work. Sometimes it also has a large impact on the construction cost. This talk will examine common practices, limitations and challenges of the instruments to measure the vertical and horizontal movement of the ground, the pore water pressure and the earth pressure which are affected by the excavation works.

Mr Yoshihiro Yokoi
Kiso Jiban Consultants
Mr Yokoi is General Manager of Kiso-Jiban Consultants Co., Ltd., Singapore Branch. He is a geotechnical engineer with over 20 years of practical experience in Singapore, Malaysia, Japan and other countries. He has been involved in various projects such as MRT, reclamations, highways, railways, tunnels, rock caverns, dams, and buildings. He has also written about 15 publications in geotechnical engineering.

MANAGEMENT OF INSTRUMENTATION FOR MAJOR PROJECTS IN SINGAPORE

In major construction projects, excavation works pose more challenges in cases of ground with soft soils, proximity to sensitive structures or tunnelling in variable ground conditions. Instrumentation designs must provide ample amount of relevant data to monitor the construction work. This data must be received rapidly and of high quality such that it can be interpreted effectively. The key requirements will be discussed with the use of case studies from Singapore as well as overseas.

Mr Nick Osborne
Land Transport Authority
Mr Osborne is a registered Chartered Engineer of the UK and a fellow of the British Geotechnical Society. He has published over fifty papers in international journals. Nick has over fifteen years of design and construction experience on major underground urban construction projects. He has worked on a large number of contracts on the North East Line and Circle Line projects. He is currently the geotechnical project manager for Down Town Line 1.

SELECTION OF INSTRUMENTATION AND TRIGGER LEVELS FOR SITE IMPLEMENTATION

The choice of appropriate instruments is important to ensure that only reliable and useful instruments are implemented on site and only meaningful data is collected. The selection of various critical limits requires careful consideration to ensure that they could serve their intended function. Experience gained from implementation of critical limits on site will also be discussed.

Dr Indrayogan Yogarajah
GeoEng Consultants
Dr Indrayogan obtained his PhD from the University of Strathclyde, Glasgow He went on to work for two of the largest specialist construction firms over a period of 8 years where he led the technical teams for the offices in Singapore, Brunei, Thailand and Philippines. He currently leads one of the largest geotechnical consultancy firms in Singapore.

INSTRUMENTATION WORKS FOR ERSS: REGULATORY ASPECTS

Adequate and reliable instrumentation and monitoring plays a crucial role in ensuring the safety of ERSS and its adjacent buildings. This paper will highlight some regulatory aspects of instrumentation works used in ERSS. The paper will also discuss some good practices and common mistakes observed in the instrumentation works used in deep excavation projects.

Dr Poh Teoh Yaw
Building and Construction Authority
Dr Poh is a Senior Executive Geotechnical Specialist with the Building and Construction Authority, which administers the regulatory framework for building structure safety in Singapore. Dr Poh is a geotechnical specialist with over 13 years of practical experience. He has authored over 15 publications in geotechnical design and construction including those published in international peer-review journals and conferences.

NEW DEVELOPMENTS IN GEOTECHNICAL INSTRUMENTATION

Recently there have been advances and new developments in the technology of geotechnical instrumentation. More robust and accurate sensors are now available with capabilities to transmit instrumentation data in real time through the internet. This presentation will highlight the new developments with their historical background.

Mr Kim Malcolm
ITM-Soil Pte Ltd
Mr Kim is a graduate from Edith Cowen University, Australia. He has over 22 years of experience in the geotechnical instrumentation industry. He has been involved in many international geotehnical projects. He has also worked with instrumentation manufacturers in USA and UK and has witnessed the evolutionary changes in the instrumentation technology.

REGISTRATION FORM Geotechnical Seminar 2010 - Instrumentation for Design And Construction of E.R.S.S.

Date: 27 January 2010
Time: 9am – 5.30pm
Venue: Function Hall, BCA Academy

Fee (Inclusive of GST): ☐ S$181.90 (GeoSS member) ☐ S$203.30 (Non-member)
Please ✔ tick where appropriate.

Event code: 76099

Name of Participant	NRIC/Passport No:	Designation	Mobile no.	Email

Company Name: _____ Company UEN No.: _____

Mailing Address: _____ GeoSS member No.: _____

CONTACT PERSON PARTICULARS

Name: DR/Mr/Mrs/Ms: _____ Email: _____

Designation: _____ Mobile 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 _____
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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

For details of other seminars and courses, please visit our website @ 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 the application form to: 6258-0558
Cheques with original application form should mailed to
BCA Academy, 200 Braddell Road, Singapore 579700

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Geotechnical Seminar 2010

INSTRUMENTATION FOR DESIGN AND CONSTRUCTION OF E.R.S.S.

Date: 27 Jan 2010 (Thursday)

Venue: BCA Academy Function Hall

Time: 8:30am to 5:00pm

Time	Content	Speakers
8:30am – 9:00am	Registration of participants	
9:00am – 9:10am (10 mins)	Opening Address	Prof C F Leung (or) Prof Phoon Kok Kwang, President, Geotechnical Society of Singapore
9:10am – 9:50am (40 mins)	Management of Instrumentation for Major Projects in Singapore	Mr Nick Osborne Land Transport Authority
9:50am – 10:30am (40 mins)	Experience Gained From Major Deep Excavation & Tunnel Projects IN CCL	Dr Cai Jun Gang Tritech Engineering & Testing (S) Pte Ltd
10:30am – 11:00am (30 mins)	Coffee Break	
11:00am – 11:40pm (40 mins)	Real Time Monitoring of Geotechnical Instruments	Mr Johnny Huang SGW Engineering Services, Taiwan
11:40am – 12:20pm (40 mins)	New Developments in Geotechnical Instrumentation.	Mr Kim Malcolm ITM-Soil Pte Ltd
12:20pm – 1:30pm	Lunch	
1:30pm – 2:10pm (40 mins)	Challenges and Improvements in Real Time Monitoring & Alert System	Dr Tan Guan Hong SysEng (S) Pte Ltd
2:10pm – 2:50pm (40 mins)	Practices and Challenges in Instrumentation for Excavation	Mr Yoshihiro Yokoi Kiso Jiban Consultants Co Ltd
2:50pm – 3:20pm (30 mins)	Break	
3:20pm – 4:00pm (40 mins)	Selection of Instrumentation and Trigger Levels for Site Implementation	Dr Indrayogan Yogarajah GeoEng Consultants
4:00pm – 4:40pm (40 mins)	Instrumentation works for ERSS: Regulatory Aspects	Dr Poh Teoh Yaw Building and Construction Authority
4:40pm – 5:15pm	Discussion Forum	Forum Chairman & All Speakers
5:15 pm	End of seminar	