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Geotechnical Design using Eurocode 7

INTRODUCTION

This workshop will prepare structural and geotechnical engineers for the adoption of the Eurocode 7 in Singapore. After attending the workshop, the participants will be able to:

- Appreciate the design approach based on the Eurocodes
- Appreciate the geotechnical design approach based on SS EN 1997 (EC 7) and Singapore National Annexes
- Apply EC 7 for the design of spread and pile foundations; retaining structures and slope stability and embankment.

CONTENTS

1. Overview and Geotechnical Design using Eurocode 7

- Overview of Eurocodes and Eurocode 7
- Basis of geotechnical design
- Geotechnical data and parameters
- Supervision of construction, monitoring and maintenance

2. Foundations: Spread & Pile Foundations

- Design situations and limit states
- Basis of design
- Design by calculation
- Design by testing
- Guided examples

3. Retaining Structures and Anchorage

- Design situations and limit states
- Basis of design
- Design for serviceability
- Guided examples

4. Hydraulic Failure, Overall Stability and Embankments

- Design situations and limit states
- Basis of design
- Uplift
- Hydraulic failure
- Stability of slopes
- Guided examples

LECTURERS

ER YANG KIN SENG was a former Director with the Building and Construction Authority, regulating and overseeing the safety of buildings and geotechnical building works under construction in Singapore, and headed the Singapore Geological Office. Er. Yang has also served with the now-defunct Public Works Department as Assistant Chief Civil Engineer, Head (Roads, Planning and Design) and Head of Geotechnical Engineering, Site Investigation, Instrumentation and Laboratories. He was the Chief Project Manager (Singapore) for the Singapore-Malaysia Second Crossing. He has published more than 40 papers in International conferences and seminars, and peer-reviewed journals. He co-chaired the SPRING (Singapore) Eurocodes Review Advisory Committee, and the Technical Committee on Civil and Geotechnical Works. He is a Professional Engineer and a Specialist Professional Engineer registered with the Professional Engineers' Board, and a Specialist Accredited Checker whilst in Building and Construction Authority.

ASSOC PROF HARRY TAN SIEW ANN lectures in the Department of Civil Engineering at the National University of Singapore (NUS). He is a registered Professional Engineer in Singapore and has been involved in major consulting works in Singapore and Malaysia. He is currently involved as specialist geotechnical consultant in several Land Transport Authority (LTA) projects involving very large deep excavations in difficult soil/rock ground conditions at the Marina Coastal Expressway and the Downtown Line 2 and Line 3 railway tunnels in Singapore.

ASSOC PROF ANTHONY GOH TECK CHEE lectures in the School of Civil and Environmental Engineering at Nanyang Technological University. He obtained his B.Eng (First Class Honours) and PhD from Monash University. His teaching, research and professional practice have covered many aspects of geotechnical engineering including earth retaining structures, pile foundations, slope stability, soil-structure interaction and soil liquefaction.

ASSOC PROF WONG KAI SIN graduated in 1972 with a BS degree from the University of Illinois. He received his MS and PhD degrees from the University of California at Berkeley in 1975 and 1978 respectively. He practiced geotechnical engineering in California before joining NTI in 1984. He retired from NTU in 2010 and is currently working full-time in consultancy works. His major areas of interest are deep excavations, deep foundations, slope stability, ground settlement, soil improvement, land reclamation and soil-structure interaction problems.

DETAILS

19th Run: To be advised
Duration: 5 evenings (15 hours)
Time: 6.30pm to 9.30pm
Venue: BCA Academy

Fee (Incl of GST): S$935.00
Refreshments will be provided.

In keeping with our green and sustainable practices, course notes will be available in e-format.

AWARD

Certificate of Attendance (COA) will be awarded to participants who meet the attendance requirement.

CPD POINTS

PEB - Pending

TARGET AUDIENCE

- Practicing Structural Engineers
- Geotechnical Specialists
- Resident Engineers
- Supervisory Personnel
- Academia

REGISTRATION

Visit BCA Academy Online StoreFront (OSF) @ *https://eservices.bcaa.edu.sg/registration/#/login* (Course code: 77086)

Note: Programme content subject to change without prior notice

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