

*A Geotechnical short course on*

# **Slope Stability, Lateral Earth Pressure and Deep Excavation** *with application of Geo5 softwares*

**24-26 June 2015** by *GOUW Tjie-Liong Ir., M.Eng, ChFC*

## **Background:**

In our practice as geotechnical and civil engineers we are often faced with excessive slope movement and even slope failures; excessive ground movement and failure of deep excavations, be an open cut or supported excavation, is also one of the construction problems we often encountered. Those failures are often caused by lack of adequate geotechnical design knowledge and construction processes. This short course is designed for consulting engineers, contractor, and academician to enhance their knowledge and skill in appreciating important factors affecting the stability of slopes and deep excavations so as to design and execute deep excavation projects safely. Case studies of slope and deep excavation failures shall be presented and discussed. The participants shall have chances to learn how to model a proper slope stability and deep excavation analysis by using GEO5 softwares.

## **Course Instructor:**

The course instructor is **Mr. Gouw Tjie Liong (Ir., M.Eng, ChFC)**. He has more than 30 years experience in designing, consulting, executing and supervising geotechnical works in Indonesia and overseas.

## **Participants:**

- The course is targeted for civil engineers who practice as consultants and contractors and for all practicing engineers/academician involved in the teaching, design and execution of geotechnical works.
- **Seat are limited.** Priority is given to the participants who have registered and paid the registration fee on **first come first serve basis**.

## **Course Topics:**

The course shall be conducted by refreshing the basic relevant geotechnical theory, followed by the in depth discussion of geotechnical engineering knowledge and how to implement those knowledge into practice. The course shall cover the following subjects:

1. **SLOPE STABILITY ANALYSIS:** *Examples of slope failures; Factors affecting slope stability; Slope types; Infinite slope; Planar Failure; Slip Circle Analysis; Fellenius, Bishop Method and Others; Geosynthetics Reinforced Slopes; Earthquake effects. Case studies by using GEO5 Software.*
2. **LATERAL EARTH PRESSURES:** *Various earth retaining structures; Lateral earth pressures and their coefficients; Earth pressure at rest; Rankine, Coulomb, Caquot Kerisel lateral earth pressure theories; Load induced lateral earth pressures. Calculation of lateral earth pressures by GEO5 Software*
3. **DEEP EXCAVATION:** *Execution of deep excavation and its supporting structures covering Soldier Piles, Secant Pile and Diaphragm walls; Ground Anchors, Quality control; Examples of deep excavation failures; Causes of the failures, followed by discussion on the designing and monitoring aspects. Case studies in designing deep excavation project by GEO5 Softwares.*

## **Registration fee:**

- **Registration fee USD 400 for overseas participants, Rp. 4,000,000 for locals**, paid in full prior to the course.
- Registration fee include course materials, certificate, lunch and coffee breaks,
- If a registered participant can not attend the course, he/she can transfer it to another person. No refund shall be entertained.
- CERTIFICATE (soft copy) shall be given to the course participant.
- Participant is advised to bring along his/her pen, notebook, calculator and a laptop computer.

## **Venue:**

- Place of course: **GREEN GARDEN i-9/28A** (behind Mac Donald Green Garden) – Daan Mogot – Jakarta Barat - Indonesia.
- Course start at 8:30 hrs and ended at 16:30 hrs with lunch break and coffee break in between.

**FIRST COME FIRST SERVE** Seats are limited.

**Registration:** via email: [gtloffice@gmail.com](mailto:gtloffice@gmail.com) or [gtltrainingclass@yahoo.com](mailto:gtltrainingclass@yahoo.com)  
or via Fax [+62-21-58355051](tel:+62-21-58355051)