



**“IEM One-Day Short Course On Basics of Design of Pile Foundation”
by Dr. Bengt H. Fellenius, Canada**

Ir. Liew Shaw Shong is currently the Chairman of IEM Geotechnical Engineering Technical Division (GETD). He is the Senior Director of G&P Geotechnics Sdn Bhd.

It was a great honour for the Geotechnical Engineering Technical Division (GETD) of IEM, to have Dr. Bengt H. Fellenius, formerly Professor of Civil Engineering at the University of Ottawa, who is an internationally recognised foundation engineering consultant and the author of more than 300 technical papers, to conduct a whole day short course at Hotel Singgahsana, Petaling Jaya on 14th June 2013.

The short course was solely organised by IEM GETD and was attended by 144 participants. This technical event was financially supported by advertisements. There were also strong support from public sectors, government link companies and oil & gas industry.

The course demonstrates that deep foundation design is a good deal more than finding some value of capacity. The course showed the essential data one must pull together for the necessary analyses and calculations for a design of a specific project. Aspects of negative skin friction and the associated drag load and downdrag were emphasised. The presentation included both broad generalities and in-depth details. Aspects such as where to install instrumentation, perform a test, and analyse the test data were addressed. Settlement analysis is of vital importance to the design of piled foundations, in which the course addressed principles of settlement analysis and provides some of the mechanics in calculating settlement. One of the main focal point of the course is that one should design for settlement rather than to design for capacity. Other aspects such as Limit States Design (LSD), Ultimate Limit States (ULS), Serviceability Limit States (SLS), by Canadian terminology, Load and Resistance Factor Design (LRFD), by US terminology and construction case histories were also covered in the course.

During the Q&A session, there were active discussions from the floor over the subject matter and mutual exchange of opinions. The short course ended at 6:00pm with a group photo with Dr. Bengt H. Fellenius and the organising committee as shown in Figure 1.



Figure 1 : Group Photograph with Dr. Bengt H. Fellenius, IEM GETD members and organising committee members

Acknowledgment : The organising committee wishes to express great gratitude to Dr. Bengt H. Fellenius' agreement to provide the presentation slides of the short course on his website (<http://www.fellenius.net/Course>) for course registered members to download.