



Technical Talk on Ground Improvement Techniques for Reclamation

by Ir. EG Balakrishnan

Ir. EG Balakrishnan is currently a committee member of IEM Geotechnical Engineering Technical Division (GETD).

The evening talk by Ir Lee Kai Ming of GCU Consultants (Johor) Sdn Bhd on Ground Improvement Techniques for Reclamation was organised by the Geotechnical Engineering Technical Division on 22 April 2016 at the Tan Sri Prof. Chin Fung Kee Auditorium, Wisma IEM. A total of 61 participants attended the talk. The purpose of the talk is to introduce some basic knowledge on reclamation techniques and also common ground improvement methods used in the country.



The evening talk was delivered by Ir Lee who has more than 15 years of experience mainly in geotechnical engineering. The talk started with introduction on the fundamental and purposes of ground improvement. Besides, reclamation methods using both mechanical and hydraulic fill were also introduced with short video during the talk.

The talk then focused on the different ground improvement techniques using prefabricated vertical drain (PVD) with surcharge and vacuum method and also “vibro techniques” such as vibro compaction and vibro replacement. The advantages and disadvantages for the different techniques were also highlighted to provide basic knowledge for selection of preliminary ground improvement techniques used for reclamation. Ir. Lee also indicated that the “most appropriate” method for reclamation and ground improvement will depend on the ground condition, availability of raw materials, contractors etc. Besides, the fundamental equations for different ground improvement techniques were also shared during the talk.

Ir Lee also shared his experience on recent reclamation jobs in Johor that he was involved. This included the rationale for the selected reclamation method together with the different ground improvement methods adopted at the different portion of the site. Besides, pictures and videos for the projects have also been shared for better understanding especially for those who has not involved in reclamation project.

The talk ended with Q&A session where engineers exchanged knowledge on both reclamation and ground improvement topics. Some of the questions raised including pond filling, suitability of specific ground improvement method for particular site etc.

