



### **Technical Talk on The role of Geosynthetics in Improving the Performance of Structures Built over Soft Soils**

by Mr. Richard Ong Tian Hwa

Mr. Richard Ong is currently a co-opted member of IEM Geotechnical Engineering Technical Division (GETD).

The evening talk by Mr. Michael Dobie on The Role of Geosynthetics in Improving the Performance of Structures Built over Soft Soils was organised by the Geotechnical Engineering Technical Division (GETD) on 10 March 2015 at the TUS Lecture Room, 2<sup>nd</sup> Floor, Wisma IEM, Petaling Jaya, Selangor. A total of 39 participants attended the talk. The talk is to provide an overview on the potential use of geosynthetics for the construction of structures over soft soils.

The presenter started the evening talk by providing some examples where soft soils are encountered on project sites and geosynthetics might be considered in some way to facilitate the proposed construction. It was highlighted that the used of geosynthetics might offer a good solution but aspects of their application and limitations are sometimes misunderstood. The presenter went on to discuss the issues of constructing over soft soils and presented the opportunities of using geosynthetics under such conditions. The presenter also covered the limitations of such applications.

Subsequently, some technical aspects on the mechanisms of interaction between geosynthetics and the soft soils were presented, namely the reinforcement concept via tension membrane effect and the stabilisation concept via interlocking and confinement effects. The talk was continued with discussion on the use of geosynthetics for the construction of pavements (paved and unpaved), working platforms and embankment fills (including special consideration for transition zone) over soft soils.

The talk ended with some questions from the audiences with many engineers raising concerned about the durability of geosynthetics used in the structures over soft soils. The presenter explained that most of the geosynthetics available in the market can be designed with design life of up to 120 years which is adequate for most structures to be constructed.

To close the event, Ir. Dr Ooi Teik Aun, from GETD presented a token of appreciation to Mr. Dobie with applause from the audiences.

