

CERAMAH TEKNIK TECHNICAL TALK

Geotechnical behaviour and interpretation of reconstituted geomaterials for soil-structure applications

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Platform: Zoom

The above talk was delivered by Ir Dr Dominic E.L. Ong (Griffith University, Queensland) on 13th December, 2023 via Zoom. Some 50 members participated. An abstract of the talk is given below:

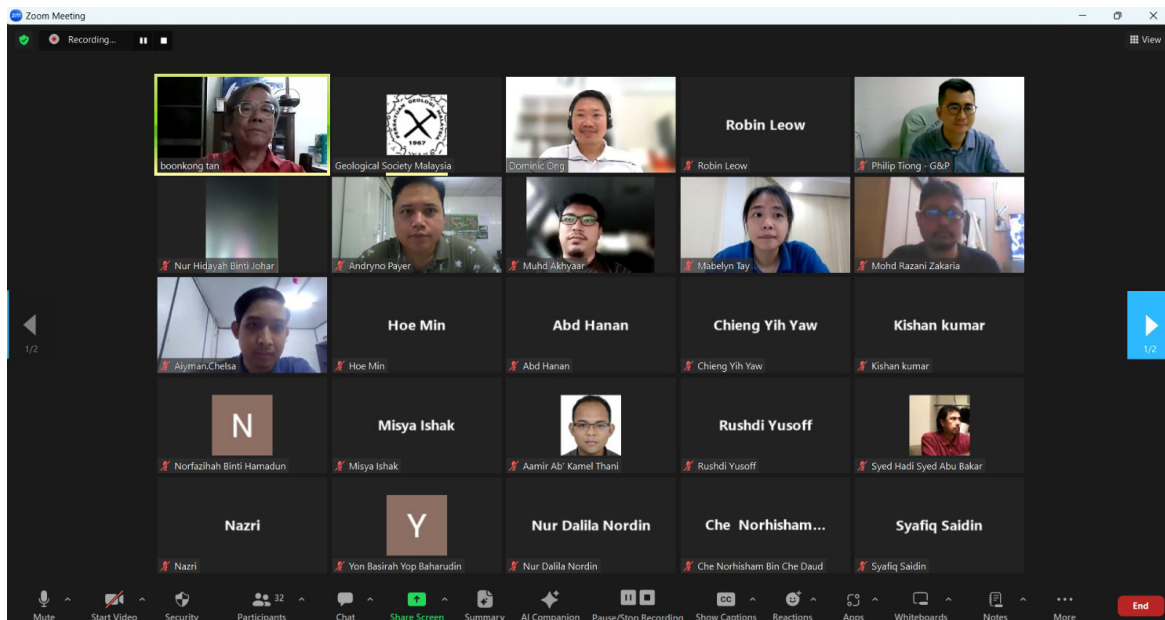
Abstract: This presentation discusses case studies of the performance of micro-tunnelling in weathered geology and floating stone columns in thick, soft clay based on careful characterisation of granular geomaterials interfacing with structural elements during the installation process.

The presentation will detail the methodology proposed, namely (i) direct shear test using reconstituted granular geomaterials followed by interpretation using (ii) Power Law function and (iii) Generalised Tangential Method to derive the equivalent shear strength parameters of the granular materials, capturing the effect of apparent cohesion and dilatancy.

Subsequently, back-analyses are carried out to benchmark the results against field cases studies to demonstrate the reliability of the methods used.

Finally, the fundamental discussion of the geomaterial behaviour is presented with reference to the developed methodology.

We thank Sdr Ong for his support and contribution to the Society's activities.



Prepared by,
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