

Survey Questions – Responses by TCs (101, 211 & 305)

(8th September 2016)

TC101 – Laboratory Testing

Principal theme of the TC - Laboratory Stress Strain Strength Testing of Geomaterials

- We attempt to promote co-operation and exchange of information concerning research and developments in advanced laboratory geotechnical testing, including apparatus, techniques, data acquisition, interpretation and modelling.
- An example question from TC 101 related to the above promotive activity - How new laboratory geotechnical testing facilities (including independent management of the various stress components allowing for several stress paths to be explored; small stress-strain measurement; large number of cyclic loading; testing in non-isothermal conditions; unsaturated soil testing) have been and will be used in practical geotechnical engineering? To which extent are they improving the analysis and the design of the geostructures? In case they are not effectively used, what are the barriers in encouraging the application of new laboratory testing in practice?

TC 211, Ground Improvement

- Principal theme of the TC - Design, Quality Control and Quality Assurance for

Ground Improvement Works

- 'Hot' topics in the practice of Ground Improvement - Protection of ground anchors against corrosion, Acceptance criteria for ground anchors, Standard practice for jet grouting works
- An example question from TC 211 related to the above 'hot' topic of acceptance criteria - In the region(s) where your company is active, what is the standard of practice for the acceptance of ground anchors (realized within the framework of retaining walls, quay walls...)? What are the execution standard or State of Practice document that you follow (also for the definition of the acceptance criteria)?
- An example follow-on question - What would you consider to be state of the art in this matter? And what (if any) is the gap between state of the art and state of practice? And why?

TC305 - Geotechnical Infrastructures at Megacities and New Capitals

Principal theme – *Design and Construction works of Geotechnical Infrastructures at Megacities and New Capitals*

'Hot topics' in the practice –

1. *Geotechnical techniques related to excavation, foundation, lifelines, tunneling and geo-hazards;*
2. *Preservation and protection of historical monuments in urban areas;*
3. *Enhancement and rehabilitation of the existing geotechnical infrastructures at problematical ground sites.*

Questions related to above 'hot' topics –

1. *What could be the most challenging work(s) to the geotechnical engineers in this regard?*
2. *What should be done on preservation/protection technologies in geotechnical engineering?*
3. *In the region(s) where your company is active, is there any standard information (SOA or SOP) which can be used as a reference to the related works?*

Follow-on questions –

1. *What would you consider to be state of the art (SOA) in this matter? If any, please state the gap between SOA and the state of practice (SOP) and the reason behind it.*
2. *Is it possible to form SOA regarding preservation/protection technologies? If YES, please indicate the significant points that should be addressed in order to match with SOP.*
3. *If YES, please briefly indicating the object(s) and the corresponding method(s) in use as well as their acceptance criteria.*