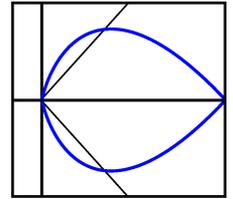




UNIVERSITY OF
CAMBRIDGE

Department of Engineering



GEOTECHNICAL
SOCIETY

Pile Design by Performance – Fact or Friction?

Dr. Dimitrios Selemetas

Chief Geotechnical Engineer - Cementation Skanska

Seminar overview:

In the UK, we spend nearly £300k every year constructing piles to resist loads based on ultimate factors of safety or partial resistance factors. Is this the right design approach? There are hundreds of geotechnical and structural engineers designing piles to resist different Eurocode Combinations, but what is it that we are designing for. What does a factor of safety mean in the context of pile design? How do we define pile performance and how is this captured in pile specification criteria for pile testing? In this talk, Dimitrios will explore what really matters when we design piles. Dimitrios will refer to some of the challenges of designing piles to Eurocodes and will present an alternative framework leading to a design based on performance. The presentation will include results from a database of pile tests in clay supporting the notion of performance driven pile design.



Biography:

Dimitrios Selemetas is the chief geotechnical engineer of Cementation Skanska with over 15 years of experience on the design and construction of piled foundations and deep basements. Dimitrios was awarded a PhD from Cambridge University on the effects of tunnelling on full-scale piled foundations and piled structures. He gained consultancy experience with Mott MacDonald and field instrumentation experience with CMCS at the Building Research Establishment (BRE) before joining the piling and foundations division of Skanska. At Cementation he has developed specialist skills in the geotechnical and structural design of piled foundations and embedded retaining walls focusing on constructability and performance driven designs. Dimitrios has been the contractor design leader for some challenging basement and foundation works including the Nova Victoria basement in London and the AstraZeneca basement in Cambridge. Dimitrios has been actively involved in the evolution of geotechnical and structural Eurocodes, he is one of the co-authors of the new CIRIA 760 report on the design of embedded retaining walls and has received the Cooling Prize of the British Geotechnical Association for his research work at Cambridge University.

When and where:

Wednesday, 22 February 2017, 19:00
Harrods Room, Emmanuel College

Queries:

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