



Eurocode 7: Geotechnical Design

5 October 2017, London, UK

Objectives:

- To provide civil engineering and external hazard specialist inspectors with an understanding of concepts, philosophies, terminology and application in design practice. The courses will not be aimed at providing inspectors with a hands-on approach on how to use the codes and instead should be geared to that of a regulatory point of view.
- It is not intended that course delegates will be required to complete written worked examples.
- To provide other specialist inspectors with an appreciation of Eurocodes.
- All inspectors are able to appreciate the depth and breadth of the subjects, and know when to seek expert advice

Scope:

Deliver a training course over 1 day to cover Eurocode 7: Geotechnical Design.

The course duration, including introductions and closing discussions, should be approximately 8 hours over and take place from 09:00 - 17:00.

Course content and delivery:

The course is to cover the definition, philosophy and application of Eurocode 7 in design practice, including the following:

- Overview and applicability of Eurocode 7

- Clarification on geotechnical design in the context of Eurocode approaches
- Basis of geotechnical design
- Ground investigation and testing
- Design of various foundation types
- Stability of retaining structures and embankments
- Common pitfalls and error traps
- Specific concerns to the Nuclear new build and decommissioning industry

Cost:

£250

Lecture Profile

Dr Ignazio Cavarretta, received a first class honours Master Degree in Civil Engineering (Laurea cum laude, 5 year course) from the University of Palermo and a PhD degree in Geotechnical Engineering from Imperial College London. He joined Imperial College in October 2005. His PhD dissertation, submitted in September 2009, is entitled “The influence of particle characteristics on the engineering behaviour of granular materials”. In October 2009 he joined the University of Bristol as research assistant in the Department of Civil Engineering, where he worked on advanced testing of granular materials using the cubical cell apparatus (CCA). In July 2011 he was appointed Senior Lecturer in Geotechnical Engineering/Infrastructure at the University of Surrey.

Before joining Imperial College, he served as a consultant on geotechnical works including foundations, retaining structures, tunnels and dams. He gained extensive design experience, developing projects for hydraulic and structural works. Chartered civil engineer in Italy, his activity covered all stages of the construction process from design to completion, monitoring and the refurbishment of old buildings. He proposed new and successful criteria, including measures to restore the upstream water tightness of embankment dams experiencing erosion through metal drain inlets and the stress analysis of a jet grouted wall protecting a circular excavation under a high hydraulic gradient.

During his PhD studies he designed a new apparatus for measuring inter-particle friction and proposed a new model for contact between irregular grains which accounts for the shape and the mechanical properties of the particles. Using image analysis, he developed a technique for an objective evaluation of sphericity and roundness of natural grains. His current research interests are in the study of the mechanics of granular materials.