

Eurocode 7 and New Design Challenges

Workshop for young practitioners and researchers

ARUP

Tuesday 19 March 2013 16:30
University College London



Eurocode 7 has been established as the current European standard for geotechnical engineering design. The next generation of geotechnical engineers (current graduates and young researchers) will use EC7 on a regular basis. This workshop aims to encourage young geotechnical engineers to engage with the new European safety codes and design methodologies. Talks by international experts involved in the development of EC7 will be followed by presentations from designers about their experience with EC7 compliant design.

Speakers



Brian Simpson is an Arup Fellow, a principal of Arup Geotechnics and an Honorary Professor at the University of Nottingham, UK. He has worked on a wide range of geotechnical and ground-structure interaction problems, maintaining particular interests in numerical modelling, retaining structures and tunnels. He presented the BGA Rankine Lecture in 1992 and a State-of-the-Art report on Geotechnical Analysis and Design at the 2009 international conference of ISSMGE. Since the early 1980's, he has been involved in the development of Eurocode 7 (Geotechnical Design), having been a member of its drafting panels and vice-chairman of the CEN (Comité Européen de Normalisation) committee on Eurocode 7 (SC7). He has authored two commentaries on Eurocode 7 and several papers on various related issues. He is the current chair of ISSMGE Technical Committee TC205 on Safety and serviceability in geotechnical engineering and of the BSI committee on geotechnical codes, B/526. He is often the UK delegate to SC7 and is a member of several of the EC7 "Evolution Groups"



Helmut F. Schweiger is Head of the Computational Geotechnics Group at the Institute for Soil Mechanics and Foundation Engineering of the Graz University of Technology in Austria and has over 20 years of experience in developing and applying numerical methods in geomechanics. He obtained his Ph.D. from the University of Wales, Swansea, UK. He is a member of the editorial board of several international journals and was chairman of 6th European Conference on Numerical Methods in Engineering. His main research interests are the development of multilaminate models for soils, application of Random Set Theory to finite element analysis and the assessment of the influence of the constitutive model for solving practical problems, in particular deep excavations, deep foundations and tunnels.



Giuseppe Scarpelli is Professor of Geotechnical Engineering at the University of Ancona, Italy and national representative at the European committee for Eurocode 7 on geotechnical design. He is also convenor of the European working Group TC250/EC7 for Seismic Geotechnical Design according to EC7 and EC8 and convenor of the Geotechnical committee for revision of the Italian Technical Code for Constructions. His main research interests include constitutive behaviour of stiff overconsolidated clays, rupture propagation in soils, slope deformation analysis, foundation engineering for historical buildings. Since 1994 he has been involved as Geotechnical consultant in a number of projects including works for harbours, landslides and tunnelling, foundation engineering and earth retaining structures in urban areas.



Christos Vrettos is Professor of Soil Mechanics and Foundation Engineering at the Technical University of Kaiserslautern in Germany. His expertise covers soil dynamics, numerical methods in geomechanics, deep foundations, unsaturated soils, earth dams, deep excavations, and terramechanics. He spent several years in construction industry and geotechnical consulting. He is convenor of the EC7 evolution group on calculation models, and member of various DIN committees while he is author of numerous publications, and editor-in-chief of "geotechnik".

Timetable

1st session (16:30-18:30) chaired by **Dr Andrew Bond**, Director of Geocentrix Ltd

16:30-17:00 «Some things Eurocode 7 doesn't say»

Brian Simpson

17:00-17:30 «Comparison of EC7 design approaches for numerical analysis of deep excavations»

Helmut Schweiger

17:30-18:00 «Geotechnical design in seismic conditions»

Giuseppe Scarpelli

18:00-18:30 «Design of top-to-down deep excavations for a metro-line in soft ground according to EC7 and German Recommendations»

Christos Vrettos

Coffee break 18:30-19:00

2nd session (19:00-20:00) chaired by **Prof Trevor Orr** from the Trinity College of Dublin

Short presentations from designers (speakers to be announced)

Sponsors

The workshop is supported by Ove Arup & Partners and the European Institute, UCL. Georgios Katsigiannis, as a member of the Geomechanics and Materials Group, being awarded the Junior Researcher 2012-13 Grant, ensured funding for the organisation of the event. For more information about the European Institute visit <http://www.ucl.ac.uk/european-institute/>

Geomechanics and Materials Group

Geomechanics and Materials is a new Group in the Department of Civil, Environmental and Geomatic Engineering at UCL. It consists of researchers with diverse background and undertakes research into exciting new areas of geotechnical engineering and physics that have practical applications in industry and the environment.

Location

Roberts 508 Room
Roberts Building, Torrington Place
University College London
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For more details and to register please contact:

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