

REGISTRATION

COURSE ORGANISATION

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FOR PLAXIS SOFTWARE

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In order to register, please do so before
15 December 2018 via our website.

COURSE FEES

Introduction day (14 January) €600
Standard Course (15-17 January) €1325
If both events are attended a discount of €300 applies.

PLAXIS VIP

Members of PLAXIS VIP may apply for a 10% discount on the course fee. Please create or login with a VIP account during registration to receive this discount.

For registration visit:
www.plaxis.com/events

VENUE

The course is held at the Van der Valk Hotel Schiphol in Hoofddorp. It is situated 8 kms southwest from Schiphol International airport next to the motorway A4 to The Hague. The hotel has a swimming pool. A free shuttle service is available between the airport and the hotel. For more information see www.hotelschiphol.nl

ACCOMODATION

Participants should arrange their own accommodation. Hotel accommodation can be booked at a special rate when booked along with the registration. Upon registration participants receive a booking form with which they can do so. Rooms have been reserved for participants of the course until 1 December 2018. After this date it cannot be guaranteed that hotel accommodation is available for course participants.

REGISTRATION

The total number of participants is limited to forty (40). Registration will be accepted in the order in which they are received. Participants who require a visa are suggested to register early. The process of obtaining a visa may take up to two months.

To register for the course, please complete the registration form via our site. Directly after registration participants will receive a letter of confirmation, travel suggestions and additional information.

Please finalize the payment before 23 December 2018. For registration and cancellation our Terms & Conditions apply (www.plaxis.com/page/terms).

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PLAXIS

essential for geotechnical professionals

STANDARD COURSE ON COMPUTATIONAL GEOTECHNICS
14-17 January 2019, Schiphol, The Netherlands



STANDARD COURSE ON COMPUTATIONAL GEOTECHNICS

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INTRODUCTION

This international course has long tradition in advanced geotechnical engineering. Each year it is well attended by participants from consulting and contracting companies, public work bodies and universities. As usual, the forthcoming course consists of a balanced mixture of lectures and hands-on computer analyses.

As in previous years the lectures focus mainly on soil behaviour and advanced methods in geotechnical engineering and less on the use of the PLAXIS software. Subjects as undrained behaviour and consolidation, previously treated only in advanced courses, have been included in this course. They are illustrated by practical case studies of embankments and deep excavations. This way the course offers an introduction to the modelling of geotechnical problems that are encountered in day-to-day engineering practice. The computer exercises are performed with

BASIC LECTURES

On the first day of the course, experts will give lectures on soil behaviour in laboratory tests and the translation of this soil behaviour into constitutive models for soil that can be used in a finite element calculation. Extra attention is given to parameter determination for those soil models.

As exercises participant will model laboratory tests in PLAXIS and compare the behaviour of the finite element model with the soil data provided. The specific areas of the lectures are:

- Elasticity and plasticity - G. Viggiani
- Soil behaviour in shear - D. Waterman
- Introduction to the HS Model - D. Waterman
- Soil behaviour in compression - D. Waterman
- Soil stiffness parameters - S. Nordal
- Undrained soil behaviour - G. Viggiani

APPLICATION LECTURES

The second day consists of lectures and exercises on advanced soil modelling and introduces the use of the Hardening Soil Model. Lectures are presented by senior engineers with extensive experience on the topics considered.

the PLAXIS 2D code. As a consequence of the easy program operation, teaching and tutoring will focus on geotechnical aspects, which allows for the short course format of three days.

SUBJECT MATTER

The main subject of the course is the use of finite element method (FEM) for stress and deformation analyses and stability assessment. The following topics are dealt with; the schematisation of complex soil conditions, obtaining the basic input data for both simple and advanced soil models, modelling realistic projects with various construction stages and interpreting the computational results. Special attention is paid to undrained soil behaviour and consolidation, as well as the determination of safety factors using FEM.

- FE in Geotechnical Engineering - G. Viggiani
- Excavation design - D. Waterman
- Non-linear computations - P.G. Bonnier
- Consolidation - A. Gens
- Dams & embankments - A. Gens
- Initial stresses & Safety analysis - D. Waterman

GROUNDWATER AND MASTER CASES

The third day starts with lectures on groundwater flow analysis and an introduction to behaviour and modelling of unsaturated soil. In the afternoon the course participants will work independently on so-called master cases.

For these cases field test results, lab test data and geotechnical correlations are used to evaluate soil parameters. Moreover, engineering judgment is needed to model stages of construction and the probability of failure stability of the construction under investigation.

- Unsaturated soils - A. Gens
- Modelling groundwater in PLAXIS - D. Waterman
- Master case - D. Waterman

SOFTWARE

Exercises and case studies are based on the computer program PLAXIS 2D, which is used by geotechnical engineers worldwide. This user-friendly code has been developed for deformation analysis, stability assessment, groundwater flow and consolidation.

INTRODUCTION DAY

On the Monday before the actual course starts an introduction to PLAXIS is given. During this day the basic functionality of PLAXIS 2D is discussed as well as the possibilities to model different soils and structural elements for modelling retaining structures, anchors, geotextiles and tunnel lining. For participants that have no experience in using the PLAXIS software it is highly recommended to participate in the introduction day in order to get sufficiently acquainted with the software.

FORMAT

The course begins with registration on Tuesday morning and ends with a session on Thursday afternoon. Sessions of three hours are held each morning and afternoon consisting of lecturing and an application exercise. Lectures are given in English, but individual assistance during exercises and case studies can also be provided in Dutch, German, Spanish and Italian.

COST

The cost of the course is €1325 and the cost of the Introduction day is €600. If both events are attended a discount of €300 applies. This includes all lunches and dinners as well as a full set of instruction manuals and the use of a computer.

Prof. Gioacchino Viggiani

Université Joseph Fourier (UJF)

Cino has been at UJF since 1998. His principal current research interests are in the constitutive modelling of soils and rocks, with special emphasis on strain localization and crack propagation processes. His experience includes experimental, theoretical and numerical work.

Prof. Antonio Gens

Technical University of Catalonia (UPC)

Antonio has been at the UPC since 1983. He has been involved in geotechnical research, education and practice for more than 25 years with special reference to the application of numerical analysis to engineering problems. He has consulted in a variety of projects involving deep excavations, tunnels, foundations and slopes.

Prof. Steinar Nordal

Norwegian University of Science and Technology (NTNU)

Steinar has been a Professor at NTNU since 1987. His research has been in constitutive modelling and finite element methods applied to geotechnical design. He has worked on piles, pile driving, offshore geotechnics, slope stability and soil improvement both as research and in consulting.

Dennis Waterman, MSc

Plaxis bv

Dennis joined Plaxis in 1996 as a programmer before shifting his main field of activity to user support and lecturing courses in 2002. Since 2006 he is the international course coordinator.

Dr Paul Bonnier

Plaxis bv

Paul has worked on Plaxis software development since he started his PhD in 1988. His work involves the development and implementation of a wide range of subjects in the finite element method.

LECTURERS