

## Outline

Tensor geogrids have been used for more than 30 years to enhance the performance of granular layers and fills in a wide range of civil engineering applications. The purpose of this Tensor design workshop is to provide both background information as well as an understanding of design methods by hands-on operation of two computer programs. In the first session, the use of Tensor mechanically stabilised layers for road pavements, unsurfaced roads and other trafficked areas is outlined based on using the program "TensorPave". The remaining three sessions are devoted to the design of reinforced soil retaining walls and steep slopes, using the program "TensorSoil". Attendees are provided with step-by-step worked examples for all the design cases looked at, which will also be demonstrated on screen during the workshop sessions. The aim is that all those attending become familiar with both the principles as well as the design inputs and processes, which will be concluded by achieving satisfactory designs for the cases examined.

There are no specific question-and-answer sessions included in the programme below, but participants are encouraged to ask questions or seek explanation throughout the sessions.

## Workshop Programme

08.00 – 09.00 Registration\* and coffee, and setting up the software

### 09.00 – 10.30 **Session 1: Pavement design**

Introduction to Tensor and this workshop

Background to mechanical stabilisation and outline of applications

Introduction to "TensorPave" software and its application to pavement design

Worked examples using "TensorPave", both surfaced and unsurfaced

10.30 – 11.00 **Coffee break**

### 11.00 – 12.30 **Session 2: Reinforced soil introduction**

Background to design methods for reinforced soil structures, looking at material design parameters, the method of calculation (two-part wedge) and factors (safety factors or partial factors) using the input menus and output results in "TensorSoil"

12.30 – 13.30 **Lunch**

### 13.30 – 15.00 **Session 3: Reinforced soil design (Part 1)**

The basic design procedure is illustrated by following through a design example for a retaining wall using the Bautechnik method in "TensorSoil" which allows the user to become familiar with all aspects of data input and calculation technique

15.00 – 15.30 **Coffee break**

### 15.30 – 17.00 **Session 4: Reinforced soil design (Part 2)**

The basic design procedure is extended using "TensorSoil" to modify the retaining wall design created in Session 3 by using the same two-part wedge method, but using factors defined by AASHTO/LRFD. The design of reinforced soil steep slopes is carried out using the UK Department of Transport method HA 68/94 (if time is short this may be an "on-screen" demonstration rather than a worked example)

\* If any participant needs to install the programs "TensorPave" and "TensorSoil" in their computer, they are asked to arrive early at the workshop so that we can assist them with the installation process.

\* To the effectiveness of the delivery of content, participant is limited to 30 people only.

\* Participants are required to bring a laptop with Windows Operating System.

\* Participants will get the original software from Tensor.

\* Participants will acquire a softcopy certificate emailed to each participant.

## For registration, please contact :

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