The Institution of Structural Engineers

Founded 1908 and Incorporated by Royal Charter 1934; Registered Charity Number 233392



2013 Session

The **Institution** of **Structural Engineers**

Regional Group Chairman:

Roy Findlay Tel: 0116 275 0750 **Regional Group Secretary:** Mike Baker

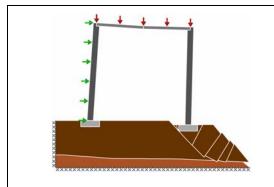
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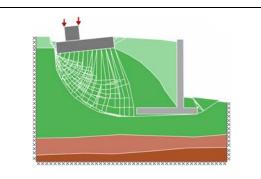
Technical Meeting
Tuesday 15th January 2013
6.00 for 6.30pm

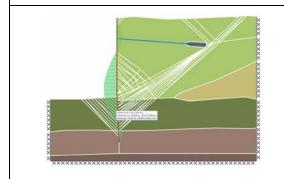
Venue: The Yew Lodge Hotel, Packington Hill, Kegworth, DE74 2DF

From basics of Eurocode 7 to cutting edge geotechnical design techniques

Speakers: Colin Smith, Senior Lecturer, University of Sheffield & Director, LimitState & Dr Matthew Gilbert MICE, Reader, University of Sheffield & Director, LimitState







The adoption of Eurocode 7, which is now mandatory in Europe, marks a significant change in the way geotechnical design is performed. By treating parameter uncertainty more rigorously, leading to partial factors which are independent of problem type, Eurocode 7 provides the engineer with a robust and flexible limit state design methodology. Key features of Eurocode 7 will be briefly outlined by the presenters, with the main focus being on ultimate limit state design and its application to elements such as foundations and retaining walls.

The move to Eurocode 7 also coincides with the availability to engineers of a powerful new analysis and design technique, Discontinuity Layout Optimization (DLO), which allows the engineer to directly and straightforwardly determine the collapse (or ultimate limit) state for any geotechnical problem geometry, without having to resort to highly simplified hand calculation type methods on the one hand, or more complex techniques such as finite elements on the other.

The DLO technique, originally developed by the presenters and now incorporated within LimitState:GEO, a generally available commercial software application, will be used throughout the presentation to illustrate the various concepts discussed.

We hope that you can join us for a very interesting talk, some light refreshments and the opportunity to ask questions. Time will be 6 for 6.30pm and refreshments will be available from 6pm.