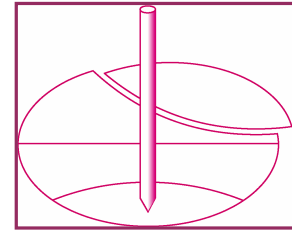


**ISSMGE Technical Committee 16**  
**Ground Property Characterization by In-Situ Tests**  
<http://www.geoforum.com/tc16>

**International Society for Soil Mechanics & Geotechnical Engineering**  
<http://www.issmge.org>



**TC16 Workshop**  
**XIV ECSMGE, Madrid**

**Tuesday 25th September, 12.45 to 14.15**

Venue will be posted to the ECSMFE Website

<http://www.ecsmge2007.org/workshops.htm>

## **Where to for the Pressuremeter ?**

### **Preamble**

The recent conference on pressuremeters (PMT-05) held in Paris (2005) included National and Regional Reports detailing the current state of practice with pressuremeter testing in many countries and regions around the world. As a result of these reports, and for other reasons, a view has been expressed that the use of the pressuremeter is not continuing to increase worldwide, as might be expected, but is rather suffering some “stagnation”.

In response to this, it is proposed that TC16 should take up the task of investigating the various issues involved, and, if appropriate, identifying what can and should be done to address them. As a first step in this process, a Workshop will be held during the XIV ECSMFE in Madrid in September. The meeting will be open to all interested in attending.

### **Goals of the ECSMGE workshop**

The function of the workshop would be to determine the following:

- Is the perception that there is stagnation, or even a decline, in the use of pressuremeter testing worldwide correct, and if so, what can and should be done about it?
- Should TC16 be pro-active in promoting resurgence in pressuremeter testing?
- What specific organised event(s) would be appropriate at ISC3 (3<sup>rd</sup> International Symposium on Site Characterisation, Taiwan)) in Taiwan to address the pressuremeter issue? (<http://www.elitepco.com.tw/ISC3/index-4.html>)

- What are the views of industry in various countries regarding what is required to reverse the decline (if there is such a decline), and to promote the ongoing use of pressuremeter testing?

It is emphasized that the purpose is not so much to provide answers to these questions. Rather, the committee of TC6 is seeking guidance/advice on whether these issues should be tackled by TC16, and if so, what is the best way of proceeding.

## **Proposed organisation**

Chair: TBC

### **Opening Presentations**

Opening presentations (~ 10 minutes each) will be given by Roger Frank (Ecole Nationale des Ponts et Chaussées, France) and Nick O’Riordan (Arup Geotechnics, UK). They have been given an open brief to present their views on the issues.

### **Discussion from the Floor**

Very brief comments will be invited from the floor. Some of the issues/questions that could be raised are given below. However, again, it is emphasised that we do not propose to resolve these questions at this workshop, but to gauge opinion on which (if any) are the key issues:

#### *General questions*

- Is there a loss of interest on the pressuremeter test? (and if so, what should TC16 be doing to address this problem?)
- Is there disillusion with what the pressuremeter offers for geotechnical design among practitioners?
- What are the areas in which pressuremeters are still advantageous compared to other tests?
- What can be done to raise the interest of practitioners? What is interest among geotechnical designers / consultants in the pressuremeter as a tool for providing design parameters?

#### *Technical questions*

- Fundamental approach versus empirical based methods?
- Why are we now getting such variation in interpretation of basic parameters from the same data even for the MPM as shown at ISP5. Are we trying to over complicate?
- Competition with the dilatometer (DMT)? Does the DMT provide a reliable operational stiffness measurement at a fraction of the cost of a pressuremeter? What about other parameters ( $K_o$ , friction/strength parameters, consolidation parameters)?
- Has there already been enough fundamental research to provide a background for interpretation, or are there further research issues that should be pursued?

- Do we need further technological development to improve the test? With the Ménard instrument: better measurement systems, better logging systems, better membrane systems?
- Is the only focus going to the Ménard type of pressuremeter? Is there a future for the self-boring pressuremeter, cone-pressuremeter or jetting-probes?
- Is there need for further work with understanding high-pressure pressuremeter applications in weak rock / hard soils?
- Are there geological conditions in which the pressuremeter might be seen as a unique tool for investigation (cemented soils, unsaturated soil conditions, residual soils, etc)?
- Are there specific design / type of structures that requires pressuremeter data?
- Where does the pressuremeter fit in a well planned SI, does it give complementary or supplementary information?
- Will the new standards on MPM, CPM, SBP etc being produced by CEN as part of the Eurocodes (and then adopted by ISO, so international) have an impact?

## Plan for the future

The hoped-for outcome from the workshop would be to decide on a direction for TC16 activity in this area, which might include some of the following:

- Special sessions on pressuremeter testing at ISC3, Taiwan
- Set up international working party under the umbrella of TC16
- Organisation of pressuremeter workshops or technical conferences in the future.

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