



## THE PRESSUREMETER AND FOUNDATION DESIGN

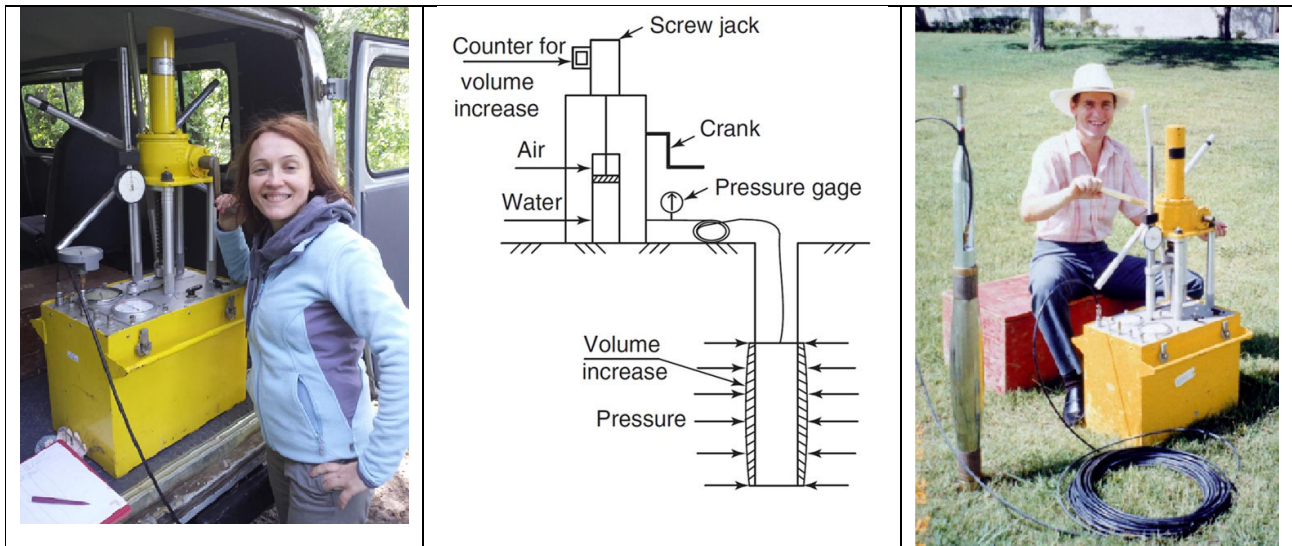
A Short Course

By Anna Shidlovskaya, Anna Timchenko, and Jean-Louis Briaud

In collaboration with Emperor Alexander I, Petersburg State Transport University (Andrei Petriaev), RSSMGFE-Russian Society for Soil Mechanics, Geotechnics and Foundation Engineering (Vyacheslav Ilyichev), GC “Georeconstruction” (Alexei Shashkin)

Saint Petersburg, 15-16 May 2017

This short course takes place just prior to the conference on Transportation Geotechnics and Geoecology (<http://conf-geotech.wixsite.com/tgg-2017>) and will be held at Emperor Alexander I, Petersburg State Transport University where the conference also takes place



## INTRODUCTION

In-situ testing and laboratory testing are complementary. A sound investigation must include both aspects. The pressuremeter is a device which can save money on major foundation projects but is underutilized because running the test and using the results in design is not well known. Equipment will be available on hand so that the participants can familiarize themselves with the test and the procedures. Design rules and design examples will be included.

## PROGRAM

The following topics will be covered during this 1½ day short course:

Monday 15 May 2017 – 09:00 to 13:00

1. Why is the pressuremeter giving an edge to the foundation engineer?
2. Description of the equipment
3. Calibration and saturation of the equipment
4. Preparing the borehole
5. Performing the test (long static pressure to simulate long-term loading or rapid inflation for impact loading or cyclic loading to replicate repetitions of load)
6. Comparison between Russian standard and ASTM standard (USA)
7. Demonstration of the test

Monday 15 May 2017 – 14:00 to 17:30

8. Data reduction
9. Soil parameters (modulus and strength)
10. Comparison between the PMT parameters and other soil parameters
11. Shallow foundations

Tuesday 16 May 2017 – 09:00 to 12:30

12. Vertically loaded piles
13. Horizontally loaded piles
14. Retaining walls
15. Soil Improvement
16. International and Russian experience on pressuremeter testing
17. Future of PMT in Russia
18. Advantages and disadvantages

Dr. Briaud, Dr. Shidlovskaya and Dr. Timchenko will be available Tuesday afternoon for free consulting on pressuremeter and geotechnical projects.

## **LECTURERS**

The short course will be given jointly by Dr. Anna Shidlovskaya, Professor at St. Petersburg University of Mines, Dr. Jean-Louis Briaud, Distinguished Professor at Texas A & M University.

Dr. Jean-Louis Briaud

Professor Briaud received his Bachelor degree in France and his Master and PhD degrees in Canada. He is a distinguished professor in the Zachry Dpt. of Civil Engineering at Texas A&M University. He has performed over 1000 pressuremeter (PMT) tests all around the world in different geotechnical and engineering geological conditions, on different soils and rocks, has developed a PMT unit (the TEXAM) which will be demonstrated during the short course, has written a manual for the Federal Highway Administration on the PMT, and a book on the PMT. He has received the ASTM Hogentogler Award and the ASCE Walter Huber Research Prize for his work on the pressuremeter. Professor Briaud is a registered Professional Engineer in Texas.

## **WHO SHOULD ATTEND?**

This course is designed for anyone involved in foundation design and soil improvement most particularly consulting engineers (geotechnical, engineering geology and structural), highway, high rise buildings engineers and technicians, material testing engineers and technicians, contractors, specification writers, geotechnical engineering and engineering geology students, and professors and others.

## **REGISTRATION FEE**

The registration fee for this short course is 250\$ including attendance at all lectures, an electronic copy of the power point slides on a USB drive, as well as soft drinks and snacks. Students can attend for free if space is available (first come first serve). To register, please contact:

<a href="mailto:info@CS-mining.com">info@CS-mining.com</a>	Dr. Anna Shidlovskaya	tel.+7 (931) 589-80-01
	Dr. Anna Timchenko	tel. +7 (905) 210-87-19

## **SHORT COURSE NOTES TO PARTICIPANTS**

The power point presentations from the speakers will form the notes distributed to the participants. These notes will be distributed as electronic files on a USB drive.