

## **Minutes for 17<sup>th</sup> ISSMGE TC304 Meeting 15-26 June 2015 (email meeting)**

**Date:** 15-26 June 2015

**Time:** Meeting closes as of 5:00 pm (Singapore, UTC/GMT +8 hours), 26 June 2015

### **1. Approval of the 15<sup>th</sup> TC304 minutes (email meeting, 20-24 Oct 2014) and 16<sup>th</sup> TC304 meeting (email meeting, 18-22 May 2015)**

The minutes were approved.

### **2. Selection of the Suzanne Lacasse Lecturer for APSSRA 2016**

The majority has selected Vaughan as the Suzanne Lacasse Lecturer for APSSRA2016. ISSMGE has concurred with our choice.

- KK Phoon: This exercise has allowed our entire membership to make a collective decision in an inclusive way. I am grateful to the candidates who are distinguished members of our community for stepping forward to offer their generous participation in this exercise.

### **3. Updates and matters arising from the previous meeting**

- 2015 C. Allin Cornell CERRA Award
  - Gordon Fenton received the 2015 C. Allin Cornell CERRA Award for his work on the development of risk and reliability methods in civil engineering.
- Recent publications
  - CRC Book "Risk and Reliability in Geotechnical Engineering" is formally published in Dec 2014 (KK Phoon and J Ching) - published <https://www.crcpress.com/product/isbn/9781482227215>
  - ISO2394: 2015 – published on 2015-03-01.
  - ASCE GSP in honour of Professor Wilson Tang (ASCE GI-RAM; Eds.: Hsein Juang, Bob Gilbert, Limin Zhang, Jie Zhang, and Lulu Zhang) – all papers reviewed
  - Phoon, K. K. & Retief, J. V., Reliability of Geotechnical Structures in ISO2394, Balkema (in progress)
  - Canadian Highway Bridge Design Code, CAN/CSA-S6-14 (Canadian Standards Association 2014). Gordon played a lead role in the development of the reliability-based code provisions and the calibration of the geotechnical resistance factors.
  - Special issue of Georisk "Modelling spatial variability in geotechnical engineering" (Jinsong Huang and D. V. Griffiths) - 8 papers received.
- ISSMGE Honour Lecture for TC304
  - Suzanne Lacasse Lecture has been established for a duration of 8 years during the 16<sup>th</sup> TC304 meeting.
- ISSMGE matters
  - ISSMGE Technical Committee Report (October 2013 – April 2015) - submitted
  - Terms of references (see attachments) – uploaded to ISSMGE website
- General Assembly of the European Geoscience Union (EGU), Vienna, 12-17 April 2015
  - Session SSS11.3 on "Statistical, computational and visualization tools for assessing and communicating soil complexity and variability" (Ruth Falconer, Giovanna Vessia,

John Isaacs, Simona Hapca, Ana Maria Tarquis, Wojciech Pula, Bezhad Ghanbarian, Beate Zimmermann).

- o Short course on "Methods and criteria to recognize the variability structure of soil properties" – 30 people (Giovanna Vessia & Wojciech Pula)

#### 4. Future activities in 2015/2016+

1. TC304 Mini-Symposium in 12th International Conference on Applications of Statistics and Probability in Civil Engineering (ICASP 12), July 12-15 2015, Vancouver, Canada (KK Phoon, Jianye Ching, Gordon Fenton), <http://icasp12.ubc.ca/> –14 papers.
2. Short course on "Quantitative risk assessment in geotechnical engineering: theory and applications, with emphasis on landslides, geohazards, offshore foundations and dams", Geoquebec 2015, Sep 20-23 2015, Quebec City, Canada (Farrokh and Suzanne).
3. 5th International Symposium on Geotechnical Safety and Risk (ISGSR), Oct 13-16 2015, Rotterdam, Netherlands (Paul Cools, Martin van Staveren, Timo Schweckendiek)
  - o <http://www.isgsr2015.org/>
  - o A joint TC205/212/302/304 meeting is proposed to be held during the ISGSR conference.
  - o Keynote lecture on "Quantitative Geotechnical Risk Management for Tunneling Projects in China" (Hongwei and Dongming Zhang)
  - o The following activities are being organized for ISGSR2015:
    1. "Application of Bayesian Methods in Geotechnical Engineering" (Jie & Zijun)
    2. "Probabilistic Slope Stability Analysis: The State of Play" (Jinsong & Vaughan)
    3. "Risk Assessment in Offshore Geotechnical Engineering" (Zhongqiang and Jinhui (Lisa))
    4. "Uncertainty and Variability in Landslide Hazard Models" (Giovanna Vessia and Mauro Rossi)
    5. "Geotechnical Risk Management and Risk Communication - Demands" (Lars)
    6. Short course on "Reliability Analysis and Updating in Geotechnical Engineering" (Gordon Fenton and Timo Schweckendiek)
    7. Short course on "Geotechnical Risk Management", including the results and tools of the Dutch Geo-Impuls program on geotechnical failure reduction (Martin van Staveren (Martin van Staveren & Martin van der Meer))
4. 16th European Conference on Soil Mechanics and Geotechnical Engineering (XVI ECSMGE 2015), Sep 13-17 2015, Edinburg, UK (Brian Simpson) – joint TC205/ETC10/TC304 workshop is being planned:

The two topics currently proposed are:

  - i. Ground anchors and foundations – do they need two different safety philosophies?
    - Piles are designed by calculation, largely, whereas anchor design (in EC7) relies only on testing.
    - Virtually no testing is carried out for spread foundations.
    - Are anchors and tension piles really so different?
  - ii. Are factors of safety useful when designing for water pressures?
    - Do factors of safety really increase safety? How should they be applied?
    - Do they give ridiculous conservatism?
    - What is the alternative?

Do contact Brian if you are keen to participate so that he can keep you in the loop.
5. TC304 Special session in the 15th ISSMGE Asian Regional Conference (15 ARC), 9-13 November 2015, Kyushu, Japan (Shin-ichi), <http://www.15arc.org/> – roughly 8 papers.

6. 6th Asian-Pacific Symposium on Structural Reliability and its Applications (APSSRA 2016), May 28-30 2016, Shanghai, China (Hongwei Huang).
  - o <http://www.apssra2016.org/>
  - o Abstract due June 30 2015
  - o Full paper due November 30 2015
  - o Suzanne Lacasse Lecture
  - o Invitation to participate in “Probabilistic Software Demonstration” Session (KK Phoon, J Ching, GA Fenton)

We would like to invite you to participate in a TC304 session on probabilistic software demonstration in APSSRA2016 (<http://apssra2016.org/>). The purpose of this session is to promote an awareness on the availability of user-friendly probabilistic softwares that engineers can use and to hasten the development of these softwares for practice. We would recommend participants to showcase the capabilities of their softwares using existing TC304 benchmark examples ([http://140.112.12.21/issmge/edu\\_2010.htm](http://140.112.12.21/issmge/edu_2010.htm)) or to submit a new example to Jianye using the template attached with this email. We do not require paper submission, but a presentation describing the capabilities of the software, details of the example following the template, and some results showcasing the capabilities (efficiency, 2D or 3D, random dimension, range of problems) during the conference. We will provide the duration of the presentation at a later date. It goes without saying that the presentation should focus on technical capabilities and preferably emphasize why it is useful to practitioners. There should be no discussion to promote any software commercially.
7. XV Panamerican Conference of Geotechnical Engineering, Buenos Aires, Argentina, 15-18 Nov 2015 (Adrian Rodriguez-Marek) –16 presentations in Session 1I: Georisks.
8. 4th China National symposium on Engineering Risk and Insurance (in 2016) will be held by Wuhan University, Hubei, China (Dian-Qing Li and KK Phoon).

## 5. Other business

Mikhail KHOLMYANSKY would like to contribute to the TC304 glossary in Russian.