

**ISSMGE FOUNDATION
REPORT ON CONFERENCE ATTENDANCE**

Your Name: Dr Sam Divall	Your Organization: City University London	Date of report: 23/01/2014
Conference Title: 8 th International Conference on Physical Modelling in Geotechnics	Location of Conference: Perth, Australia	Dates of Conference: Jan 14 th – 17 th 2014
<p>What you learned:</p> <p>The International Conference on Physical Modelling in Geotechnics occurs once every four years and is one of the main events in the calendar for geotechnical modellers. The conference was an opportunity to meet colleagues from both industry and academia, discuss the latest advances in geotechnical research and share best practice relating to experimental techniques.</p> <p>In addition to the conference programme itself, another major benefit was the conference being held at the University of Western Australia. The research group at the university (the Centre for Offshore Foundation Systems), utilise an almost identical centrifuge to that at City University London and it was extremely useful to share ideas, both technical and academic. It was especially useful to observe how a similar sized centrifuge facility and techniques were applied to a different area of geotechnical engineering research (offshore foundations).</p>		
<p>People you met:</p> <p>The conference was well attended by representatives from all the major centrifuge and physical modelling facilities worldwide. At present I am employed on a research project investigating the effect of installing vertical lift shafts on existing infrastructure. I was able to meet and discuss the project with many academic colleagues. In particular, the discussions with Dr Mohammed El-Shafie (Cambridge University, UK) and Dr Ryan Phillips (C.Core, Canada) were extremely productive and will have a significant impact on the direction of my future research work.</p>		
<p>Main features of conference:</p> <p>The main features of this conference were the keynote and guest lectures organised for each morning session. The conference also included the first Schofield Lecture given by Professor Malcolm Bolton (Cambridge University, UK), which was both extremely informative and a privilege to attend.</p>		
<p>Your comments on the conference:</p> <p>The conference, as a whole, was well organised and attended. There was a wide range of topics, discussions and parallel sessions.</p>		

Please attach short report (maximum 400 words) suitable for publication in the ISSMGE Bulletin:

The event for which the financial assistance was sought was the Eighth International Conference on Physical Modelling in Geotechnics (ICPMG2014). The majority of the conference took place at the University of Western Australia's main campus and was organised by the Centre for Offshore Foundation Systems (COFS) research group. The main theme of this conference was to communicate the latest developments in all aspects of geotechnical physical modelling to both academic and practitioner communities. I applied for a grant from the ISSMGE's Foundation Award while working on my post-doctoral position at City University London in order to enable me to attend this premier event in my research area.

The paper I submitted to the conference was based upon work carried out during my PhD studies concerning tunnel construction. Due to the popularity of the event, it was not possible for all submissions to be presented but I was invited to give a presentation on my paper. This was alongside many other excellent research projects from around the world.

One particular highlight was the guest lecture and tour by Professor White of UWA's O-tube facility, which models the fluid-structure-seabed interaction. This is a unique facility constructed to enable researchers to investigate the effect of water currents generated during cyclone events on offshore pipelines. The O-tube can simulate water currents oscillating at up to 2m/s at a very large scale. The facility was impressive not just because of the insight it gives into how offshore structures behave but also from a technical aspect.

The guest lecture by Professor Springman (ETH, Switzerland) describing an intricate test procedure performed within a drum centrifuge which injected material into a soil sample remotely in order to study methods of stabilising embankments. The lecture was impressive both from a technical standpoint and also the applicability of the results to real engineering projects.

However, the conference highlight was the first Schofield Lecture given by Professor Malcom Bolton. This was entitled 'Centrifuge Modelling: Expecting the unexpected'. This lecture contained five lessons for researchers undertaking investigations into geotechnical events using a centrifuge with anecdotes from his many years of experience. I was honoured to have been in the audience.

This conference has contributed hugely to my development as a geotechnical researcher. I was able to discuss future research aspirations with members of other institutions with vast experience in this field. The lessons learnt from the guest lectures, Schofield Lecture and laboratory tours will be influential at my home institution to further the research currently being undertaken.



Photographs from Conference:



(L) Prof Christophe Gaudin (outgoing chair of TC104)