

# ISSMGE FOUNDATION REPORT ON CONFERENCE ATTENDANCE

Your Name: Petrus Arnoldus Crous	Your Organization: The University of Pretoria	<b>Date of report:</b> 27/09/2022
Conference Title: 10 <sup>th</sup> International Conference on Physical Modelling in Geotechnics 2022	Location of Conference: KAIST, Daejeon, South Korea	Dates of Conference: 19-23 September 2022

## What you learned:

I learned quite a lot of new tips and tactics at the conference. As my postgraduate research concerns physical modelling (using a geotechnical centrifuge), there are many innovative ideas to approach the same problem. A fair bit of the work presented was on modelling techniques on tailings dams, which is where my work interest lies. An example of what I learned is how to accelerate multi lift consolidation in the centrifuge, which was presented by Professor Gonzalo Z. Narvaez from the University of Alberta. Other work presented is how to use particle image velocimetry in centrifuge tests, which is something I have not incorporated in any of my research as of yet. An alternative method of tracking soil behaviour and movement was shown by Professor Srikanth S.C. Madabhushi, where he showed how to use depth sensing cameras to track the flow out behaviour of a centrifuge model that has failed.

In summary, I learned quite a lot of modelling techniques that will in the long term help improve the quality of my research.

#### People you met:

Tiago Gaspar, Rowena Stevenson, Professor Gopal S.P. Madabhushi, Professor Srikanth S.C. Madabhushi, Sunil Poudyal, Professor Giulia M.B. Viggiani, Professor Paulo Coelho, Professor Jason T. DeJong, Professor Orestis Adamidis, Moonkyung Chung, Professor Hein-Joon Park, Zacharoula Karsanevaki, Ashtha Bhatta, Professor Gonzalo Z. Narvaez, Professor Oliver Reul, Sina Baghbanrezvan.

#### Main features of conference:

The first main feature was interactive activities. The conference welcomed open forum discussions and talks, as well as giving the opportunity to have discussions between sessions. The interactive discussions between sessions is what enabled me to meet as many people as possible. The format of the presentations (i.e. varying between regular presentations, keynote lectures, the 5<sup>th</sup> Schofield lecture, etc.) were also varied enough to keep my attention focused on what was presented. The interactivity of the conference allowed me to discover and share interests with other researchers.

The topics of the conference were very relevant to international issues in geotechnical engineering (such as tailings dam failures, wind turbine foundations, seismic failures of geotechnical structures, etc.).

Another great feature of the conference was the embracement of the South Korean culture. The committee that arranged the conference arranged food that was local to Korea and also arranged two cultural tours, which allowed me to experience an environment and culture which I otherwise would not have been able to experience.

### Your comments on the conference:

As a first time conference attendee, the conference was an eye-opener as well as a mind-opener. The level of expertise and knowledge presented at the conference was excellent. People had very positive attitudes and were willing to explain concepts in their field of expertise.

The lessons I learned at the conference were practical and engaging, which have sharpened my critical thinking about problems in my future research. It also stimulated my creativity for my own research. Attending the conference made me review my current practices of how I conduct my own experimental work and should certainly improve the quality of my own work. It made me recognise the importance of significant ideas, which allows me the generate important research questions.

Attending the conference made me take the time to evaluate my intellectual traits and how I can apply them to myself and my work and develop a deeper understanding of my traits.



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

The 10<sup>th</sup> International Conference on Physical Modelling in Geotechnics 2022 was held at Korea Advanced Institute of Science and Technology in Daejeon, South Korea, from 19 to 23 September 2022. The conference was organised by the Korean Geotechnical Society as well as the Technical Committee 104 of the International Society of Soil Mechanics and Geotechnical Engineering.

The conference consisted of various programs, which included keynote lectures, invited lectures and parallel sessions where oral and posters presentations were given. The conference was presented in a hybrid mode for the first time. The conference covered a wide variety of topics, including physical modelling facilities and equipment, instrumentation and measurements, sample characterisation, offshore geotechnics, geohazards, underground structures and pipelines, excavations and retaining structures, dams and embankments, earthquake related problems, foundations, scaling principles and modelling techniques, and rock engineering.

The first day of the conference started with an opening ceremony, presented by the conference chair, Moonkyung Chung, who is the President of the Korean Geotechnical Society, and local organising committee. This was followed by four keynote lectures from various distinguished researchers from around the world. Afterwards orals presentations were given in parallel sessions on a wide variety of topics. The day ended of with the 5<sup>th</sup> Schofield Lecture, presented by Professor Osamu Kusakabe.

The second day started of with another keynote lecture, which was followed by a memorial session for the later Professor Dong-Soo Kim. Oral presentations subsequently followed the memorial session and the day was closed off with the ISSMGE Bright Spark Lectures, presented by Dr. Kil-Wan Ko and Professor Orestis Adamidis. The final day consisted of oral presentations with two keynote lectures inbetween. The Author's paper, "Lessons learnt modelling tailings dam flow-type failures in the centrifuge" was presented on 22 September 2022, with the session chairs being Dr. Jean de Sauvage and Dr. Joon-Young Park. The conference officially ended with a closing ceremony, presented by the local organising committee. The organising committee arranged for two cultural tours the following day, which allowed the conference attendees to experience and learn about the local culture of South Korea.

I am thankful for the ISSMGE Foundation for providing me with a generous grant to attend ICPMG2022, which is my first conference. It was undoubtedly a wonderful experience, from which the lessons I learned will be valuable to improve my own research.

**Photographs from Conference:** Insert here or attach to email

















