ISSMGE FOUNDATION
REPORT ON CONFERENCE ATTENDANCE

<table>
<thead>
<tr>
<th>Your Name:</th>
<th>Daniel John Avutia</th>
<th>Your Organization:</th>
<th>SAICE/ Enel</th>
<th>Date of report:</th>
<th>29 September</th>
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</thead>
<tbody>
<tr>
<td>Conference Title:</td>
<td>19th International Conference on Soil Mechanics and Geotechnical Engineering</td>
<td>Location of Conference:</td>
<td>Seoul, Republic of Korea</td>
<td>Dates of Conference:</td>
<td>17 to 22 September 2017</td>
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What you learned:
A total of 751 papers and 135 sessions with 431 Oral presentations and 320 Posters on display illustrated that Ground Engineering is a broad research niche.

I thoroughly enjoyed the simplistic atterberg limit and grading analysis analogies during the Terzaghi Oration by Dr Peter Day. The transfer of knowledge between academics and practicing engineers is critical to the growth of the Geotechnical fraternity and innovative approaches towards problem solving. Dr John Powell was very good in presenting the applicability of various in-situ tests but also highlighted the requirement for consistent test execution procedures and reliable equipment. Prof Mark Randolph gave a brilliant lecture on physical modelling used in conjunction with numerical modelling for offshore applications, The effects of low strain cyclic loading damage versus consolidation under mean loadings increasing the strength of a material were fascinating to me. The final honours lecture, namely the Suzanne Lacasse lecture presented by Farrokh Nadim was definitely a case of saving the best for last. Reliability based design is the future design criteria to account for Geotechnical uncertainty in real life problems. Soil properties, loads & drainage and problem geometry all contribute towards the probability of failure and reliability index. I learnt that a stand-alone factor of safety is insufficient for design confidence.

The TC 308 Energy Geotechnics was of particular interest to me as I work in the Renewable Energy niche. Fossil fuels account for 86% of the power generation which leaves a massive opportunity for Nuclear and Renewable Energy power. Uranium has the highest energy density of 900 000 MJ/kg as opposed to coal that is 23 MJ/kg.

On a less technical note, I learnt that the senior engineers were more than willing to share contact details and discuss ideas with me as a young professional which resonates with the unearthing the future theme.

People you met:
Suzanne Lacasse – NGI MD
Roger Frank – Former President of ISSMGE
Paul Wesley Mayne – North America Vice President
Jennifer Nicks – Former Chair of YMPG
Peter Day – Former Vice President Africa  
Fatima Baligh – Former Africa Vice President  
Samuel Uchechukwu EJEZIE - Former Africa Vice President  
Sukumar Pathmanandavel – ISSMGE Board Level Committee Chair  
Alejo Sfriso – Vice President South America

Main features of conference:
The opening by Ban ki Moon was just world class, the pedigree of the man and the relevance of ground engineering are summed up in this quote “ I strongly believe that Geotechnical engineering is the key to solving natural and man-made disasters, derived from conflicts between man and nature”
The overall structure of the conference with Keynote lectures on the first 2 days, followed by Workshops on 3 and 4 days gave a good balance. The Posters and exhibition stands were very informative and encouraged delegates to network during the tea and lunch breaks.

Your comments on the conference:
The major difference between the workshop/parallel session speakers and Keynote speakers was the use of well documented case studies. Detailed geological information, laboratory results, in-situ testing and monitoring instrumentation are key for narration of all geotechnical case studies. The multinational conference definitely allowed delegates to connect beyond and build lasting relationships within the ground engineering fraternity.

Please attach short report (maximum 400 words) suitable for publication in the ISSMGE Bulletin:
The 19th International Conference on Soil Mechanics and Geotechnical Engineering (ICSMGE) took place in Seoul, Republic of Korea between 17 and 22 September 2017. A total of 751 papers and 135 sessions with 431 Oral presentations and 320 Posters on display illustrated that Ground Engineering is a broad research niche. The opening address by Ban ki Moon was just world class, the pedigree of the man and the relevance of ground engineering are summed up in this quote “ I strongly believe that Geotechnical engineering is the key to solving natural and man-made disasters, derived from conflicts between man and nature”

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

Daniel Avutia and Paul Mayne

From Left to Right: Daniel Avutia; Mario Terceros; Lucy Wu, Jennifer Nicks, Aleksandra Chepurnova, Louis King