

## ISSMGE FOUNDATION REPORT ON CONFERENCE ATTENDANCE

Your Name: DEEPAK PATWA	Your Organization: Indian Institute of Technology Guwahati	Date of report: 07 <sup>th</sup> July 2023
Conference Title:	Location of Conference:	Dates of Conference:
9 <sup>th</sup> International Congress on	Chania, Greece	25 <sup>th</sup> -28 <sup>th</sup> June 2023
Environmental Geotechnics		

#### What you learned:

I am a Ph.D. student working on thermal backfill material for insulating thermally activated structures. This conference has given me a wider scope of my area of research, how biocharbased thermal backfill material applies as a thermally insulating material to mitigate heat transfer for geothermal energy storage systems. Presenting my work to experts from various parts of the world allowed me to showcase my research and receive valuable feedback. The discussions with these experts significantly broadened my knowledge and deepened my understanding of my research area.

Attending technical sessions in Geo-Energy gave me a lot more research ideas and how thermal backfill can be applied to the geothermal energy storage system. The attending technical session such as Biogeotechnics & Bioremediation, Reuse & Recycling, Advances in geoenvironmental field characterization, Construction waste reuse, Geoenvironmental land remediation, coupled processes in environmental geotechnics & geo-energy provided me with a wider knowledge about geoenvironmental engineering.

The Panel discussion: Nexus of Geo-Energy & Geo-Environment, was very informative and provided perspective on critical Geo-energy issues that connect to geoenvironmental issues, which include nuclear waste disposal, geothermal energy, natural gas extraction, and energy from waste. The Bright Spark Lectures from young Eminent speakers were also very educating and engaging, especially the "Biogeotechnics for hazard mitigation, energy generation, CCS, and living construction materials" delivered by Dr. A. C. Saracho.

#### People you met:

Fortunately, I met several distinguished researchers at the conference and had many useful discussions. Among the people I was honored to meet:

- **Prof. Abdelmalek Bouazza,** Professor in Geotechnical Engineering, Department of Civil Engineering at Monash University, Australia.
- **Prof. Peter Cleall,** Professor of Geo-environmental Engineering and Head of Department of Civil Engineering at Cardiff University, United Kingdom.
- **Prof. Hemanta Hazarika,** Professor of Department of Civil & Structural Engineering, Kyushu University, Japan.
- **Dr. Majid Sedighi**, Senior Lecturer, Geotechnical Engineering in Department of Mechanical, Aerospace and Civil Engineering, University of Manchester, UK.
- **Prof. G L S Babu and Prof. Gali Madhavi Latha,** Professor, Department of Civil Engineering, Indian Institute of Science Bangalore, India.
- Prof. Marc Ballouz, ISSMGE President.
- **Prof. D N Singh, Professor,** Department of Civil Engineering, Indian Institute of Technology Bombay, India.



#### Main features of conference:

The 9<sup>th</sup> edition of the International Congress on Environmental Geotechnics (ICEG) focused on important topics such as landfilling, geoenvironmental land remediation, energy and resource harvesting, and strategies to combat climate change. The keynote lectures and the theme lectures presented by professors and experts in the field were rich and valuable.

One remarkable aspect of the conference was the "R K Rowe lecture" presented by Prof. A. Bouazza. The captivating lecture, titled " Untangling the mysteries of geosynthetic clay liners behavior in aggressive and challenging environments" held the audience's attention with its invaluable observations regarding the performance of these liners in diverse environments. It illuminated the intricacies and difficulties related to geosynthetic clay liners, presenting fresh viewpoints and enriching our comprehension of their effectiveness.

The main feature of the conference that marked a strong impression on me was the inclusion of Bright Spark lectures. These lectures offered a remarkable platform for emerging researchers to share their innovative ideas and work during the conference.

#### Your comments on the conference:

I would like to express my sincere appreciation and gratitude to the organizing committee of 9<sup>th</sup> International Congress on Environmental Geotechnics (9ICEG) for their outstanding efforts in coordinating such an exceptional event. The conference showcased remarkable technical excellence, and the overall management was truly commendable. One aspect that truly amazed me was the extensive range of subjects covered in the keynote lectures and technical sessions. The selection of topics was exceptional and effectively catered to the diverse interests and research areas of the participants. I had the privilege of engaging with numerous subject experts and distinguished researchers from different parts of the world, significantly enriching my knowledge and fostering potential collaborations.

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

The 9<sup>th</sup> ICEG, a prestigious event for geotechnical and geoenvironmental researchers and engineers, took place from 25<sup>th</sup> to 28<sup>th</sup> June 2023. It is organized by Technical Committee TC215 of the ISSMGE and the Hellenic Society for Soil Mechanics and Geotechnical Engineering. The conference provided an opportunity for academics, researchers, and engineering practitioners to meet and discuss the state-of-the-art in the area of Environmental Geotechnics and highlight current challenges faced in their application.

The conference showcased a diverse program consisting of 12 keynote lectures from distinguished speakers, 3 special sessions, 3 panel discussions, 4 Bright Spark lectures, and approximately 244 oral presentations. The event kicked off on 25<sup>th</sup> June with Prof. Dimitrios Zekkos, Prof. Marc Ballouz, and Prof. Kristin Sample-Lord delivering welcoming remarks. On 26<sup>th</sup> June, the technical sessions commenced with Prof. A. Bouazza delivering the R K Rowe lecture, setting the stage for engaging presentations and discussions throughout the conference. Each day of the event offered a variety of activities to keep researchers actively involved and enhance their knowledge. Invited lectures, special sessions, and panel discussions were carefully organized to provide diverse perspectives and insights into the field of environmental geotechnics. These sessions encouraged valuable exchanges of ideas



and facilitated in-depth discussions on important topics.

The technical papers presented at the conference were of high quality and provided state-of-the-art on the diverse topic of environmental geotechnics. The technical sessions were also interactive, allowing the audience to ask questions and make good recommendations for the presenters and the entire audience. Multiple companies also showcased their approach to solving geotechnical problems, which provided an opportunity for attendees to interact with industry experts, gain insights into the projects they undertake, and discover the diverse range of solutions they provide for various geotechnical and geoenvironmental engineering problems.

Overall, the 9<sup>th</sup> ICEG was a remarkable event that brought researchers and engineers together, provided a platform for fruitful discussions and knowledge sharing, and facilitated interactions with professionals from various sectors. I would like to express my gratitude to ISSMGE Foundation for providing me with financial assistance for participating in this conference. It was definitely an enriching experience. The conference provided me with valuable information and knowledge that I hope to incorporate into my research plans and publications. Furthermore, I am eager to share these insights with my colleagues at my institution.

### Photographs from Conference:



**Attending Invited Lectures** 



Attending Panel Discussion on Nexus of Geo-Energy and Geo-Environment



Myself with Prof. Abdelmalek Bouazza and Dr. Majid Sedighi



With Prof. Hemanta Hazarika and Prof. Gali Madhavi Latha





Presenting my Research work



Interacting with Prof. Marc Ballouz at opening ceremony of 9<sup>th</sup> ICEG