

## ISSMGE FOUNDATION REPORT ON CONFERENCE ATTENDANCE

Your Name: Leonardo Maria Lalicata	Your Organization: University of Genoa (Italy)	<b>Date of report:</b> 15/05/2023
Conference Title: 8th International Conference on Unsaturated Soils (UNSAT 2023) "Towards Unsaturated Soils Engineering"	Location of Conference: Milos (Greece)	Dates of Conference: 2 <sup>nd</sup> to 5 <sup>th</sup> May 2023

### What you learned:

The conference addressed many aspects of unsaturated soils including the hydro-thermochemo-mechanical coupling, the interaction with the environment, the dynamic behaviour of unsaturated soils and practical applications.

I gained and/or strengthened knowledge on many aspects, including:

- Soil-plants-environment interaction.
- Laboratory testing, physical and theoretical modelling of the dynamic behaviour of unsaturated soils.
- hydro-thermal aspects of unsaturated soil behaviour.
- effect of the microstructure.
- Laboratory testing and small-scale experiments on the hygro-thermal interaction of rammed earth structures.
- The role of unsaturated soil mechanics in the preservation of historic monuments.

From the Blight Lecture, I learned the importance of understanding and learning from our errors, I learned how to take them as an opportunity to expand knowledge and broaden the fields of interests by adopting a multi-disciplinary approach.

#### People you met:

#### Many friends/colleagues:

Cristina Jommi and Gabriele Della Vecchia (Politecnico di Milano), Marianna Pirone (Federico II, Università degli studi di Napoli), Giada Rotisciani (La Sapienza, Università di Roma), Giuseppe Pedone (Università di Trento), Simona Guglielmi (Federico II, Università degli studi di Napoli), Francesca Casini and Gorizia D'Alessio and Arianna Pucci (Tor Vergata, Università di Roma)...

#### Many new encounters:

Rafael Baltodano-Goulding (Universidad de Costa Rica), Majid Ghayoomi (University of New Hampshire), Joao Mendes (Northumbria University), Enrique Romero and Nuria Sau and Laura Gonzales-Blanco (UPC Barcelona), Roberta Ventini and Marialaura Tartaglia (Federico II, Università degli studi di Napoli), Xiong Zhang (Missouri University), Anita Laera (Plaxis), Marti Lloret-Cabot (Durham University), Adrian Russell (UNSW Sydney), Alessia Losini (Université Savoie Mont Blanc), Antony Leung (UKUST Hong Kong), Alessandro Fraccica (ISPRA), Christopher Beckett (University of Edinburgh)

And many others...



#### Main features of conference:

The UNSAT 2023 conference was well planned with a logical sequence of the sessions, spanning from fundamental unsaturated soils behaviour to geo-environmental application and documented field cases. The themed lectures were delivered by eminent researchers/professors in unsaturated soil mechanics.

The conference was preceded by introductory courses for non-specialists and followed by field visits. A panel discussion on the best way to teach unsaturated soil mechanics to undergraduate students was also included in the programme.

#### Your comments on the conference:

I really enjoyed the Blight Lecture from Professor Eduardo Alonso on the "positive history of an error" and the brilliant themed lecture from Antony Leung on "Al-informed soil-root-atmosphere interaction".

The coffee breaks offered plenty of time to networking and further discussing the themes of the sessions.

Unfortunately, I missed the panel discussion on "the best way to teach unsaturated soil mechanics" that I was really interested on, but I was presenting one of my talks in the parallel session.



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

The UNSAT 2023 International Conference was the first in presence conference on unsaturated soils after the pandemic. Held in the island of Milos, Greece, it was chaired by Michael Bardanis, President of the HSSMGE. The conference was preceded by introductory courses for non-specialists and Ph.D. candidates. After the conference, field visits were organised. A panel discussion on the best way to teach unsaturated soil mechanics to undergraduate students was also included in the programme.

Researchers from many parts of the world attended the conference bringing their contribution to various topic of unsaturated soils, which included:

- Fundamental soil behaviour
- Physical, numerical and theoretical modelling
- Foundations
- Cyclic & dynamic behaviour of unsaturated soils
- Understanding the effect of climate change on the environment and infrastructure through unsaturated soil behaviour
- Slope stability & landslides
- Microstructure
- Multi-phase coupling

The keynote lectures were excellent. The parallel sessions were professionally managed and most of the speakers delivered high quality talks on their research and findings. Most of the Q&A sessions engaged the presenters and the audience in constructive discussions. The informal discussions at the social events (social dinner, coffee breaks, etc...) helped exploring possible collaborations, expanding the network, exchanging ideas and sharing knowledge.

The UNSAT 2023 conference was a remarkable opportunity to meet new and old colleagues after the Covid pandemic. Learning from experienced professors with decades of experience to share and engaging fruitful discussion with leading researchers was invaluable and inspiring. I express my gratitude to Michael Bardanis and his team for the huge effort spent in organising this wonderful event. I also extend thanks to the ISSMGE Foundation Trustees for the financial support, without which attending this conference would not have been possible.



### Photographs from Conference:

