



MEETING MINUTES

Unsaturated Soils Committee

Wednesday, November 15th, 2017

7:30 – 8:45 am (Central Time)

Room: Bel-Air (Intercontinental Dallas Hotel)

Members (25): Laureano Hoyos, John McCartney, William Likos, Brad Keelor, Helen Cook, Idil Akin, Tugce Baser, Delwyn Fredlund, Majid Ghayoomi, Sandra Houston, Kalehiwot Manahiloh, Mohammad Khan, Zhen Liu, Gerald Miller, Muralee Muraleetharan, Soonkie Nam, Iraj Noorany, Marcelo Sanchez, John Siekmeier, Farshid Vahedifard, Corrie Walton-Macaulay, Jairo Yepes, Claudia Zapata, Yida Zhang, Xiong Zhang

Guests (8): Changfu Wei, Adrian Russell, David Toll, Leo Rivera, Aritra Banerjee, Leon van Paasen, Chuang Lin, Enrique Romero

1. Welcome/Introductions (Hoyos)
 - Laureano Hoyos welcomed newest members (last year): Bo Zhang, Gizem Bozkurt, Idil Akin, Omid Ghasemi Fare, Md. Sadik Khan, Bhaskar Chittoori, Tugce Baser, Jairo Yepes.
 - Attendees introduced themselves; John McCartney invited interested guests to join the committee officially by sending their CV and ASCE membership to Laureano, Bill and John, and filling out the committee application form on the Geo-Institute Technical Committees website.
2. Review of Minutes from 2017 Spring Meeting at Geotechnical Frontiers, Orlando, FL (Likos)
 - Minutes approved unanimously.
3. Updates on Recent/Upcoming Conference Sessions (Hoyos)
 - PanAm-UNSAT 2017: Second Pan-American Conference on Unsaturated Soils, Dallas, TX, November 12-15, 2017. (Discussion saved for later: Item 4 below.)
 - International Symposium on Coupled Phenomena in Environmental Geotechnics, Leeds, UK, September 6-7, 2017.
 - i. Organized by TC215 on Environmental Geotechnics
 - ii. John McCartney delivered a keynote lecture
 - ICSMGE 2017, Seoul, South Korea, September 17-22, 2017.
 - i. Del Fredlund delivered the first Blight lecture
 - ii. Three technical sessions on unsaturated soil mechanics
 - iii. 1.5-hour workshop on unsaturated soils, focused on the state of the practice with four speakers
 - iv. Call for abstracts on a special issue on case histories involving unsaturated soils
 - IFCEE 2018 Congress, Orlando, FL, March 5-10, 2018.
 - i. Session AB06/ Thermal/Energy Piles/Sustainability, Co-chairs: Omid Ghasemi Fare, John McCartney. 8 papers accepted, 6 will be presented.

- ii. Session E07/ Unsaturated Soils, Co-chairs: Farshid Vahedifard, Rifat Bulut. 5 papers accepted that will be presented.
- GeoShanghai 2018 International Conference, Shanghai, China, May 27-30, 2018.
 - i. Xiong Zhang serving as conference co-chair
- UNSAT 2018, 3-5 August 2018, Hong Kong.
 - i. Deadline for papers is 11/15/2017
 - ii. Blight lecture will be delivered again at this conference by Del Fredlund
- Symposium on Energy Geotechnics, Lausanne, Switzerland, September 26-28, 2018.
- XVI Pan American Conference on Soil Mechanics and Geotechnical Engineering, Cancún, Mexico, November 17-20, 2019.
 - i. Laureano and John co-chairing session(s) on unsaturated soils
- 7th Asia-Pacific Conference on Unsaturated Soils, Nagoya, Japan, August 23-25, 2019.
- GeoCongress 2019, Philadelphia, PA, March 24-27, 2019.
 - i. Theme on Case Histories in Geotechnical Engineering
 - ii. Call for session proposals is currently out
- 4th European Conference on Unsaturated Soils, Lisbon, Portugal, June 24-26, 2020
 - i. Enrique Romero offered a brief update, conference still in the planning stage
- 4. Update on PanAm-UNSAT 2017: Second Pan-American Conference on Unsaturated Soils, Dallas, TX, November 12-15, 2017 (Hoyos/McCartney)
 - Review of attendance: 203 attendees, 24% students, 20 countries represented, 75/25 male/female ratio
 - Review of exhibitors/sponsors: 12 exhibitors/sponsors
 - Review of Geotechnical Special publications (GSPs): 194 draft papers submitted, 180 papers accepted, and 147 papers approved for final publication (typical for GI conferences). These publications will be divided into several volumes and sent to ASCE for proofing. Link will be sent to all attendees to access the GSPs (February/March 2018).
 - Review of First Distinguished Pan American Lecture, 4 Keynote Lectures, Fredlund Symposium, 6 State-of-the-Art Lectures/State-of-the-Practice Lectures, and 3 Panel Sessions on Dynamic Behavior of Unsaturated Soils, Expansive Soils, and Cracking of Unsaturated Soils.
 - Review of short courses offered by Noorany/ Detournay and Zhang/Hoyos/Sanchez.
- 5. Reports from Liaison Organization Contacts
 - Technical Committee Chairs Workshop (Hoyos): No update
 - GI Geoenvironmental (McCartney): No update
 - GI Shallow Foundations (Zhang): Working on releasing the “Yellow Book”
 - GI Soil Properties and Modeling (Muraleetharan/Hoyos): Specialty conference still in the works
 - GI Geology and Site Characterization (Puppala): No update
 - GI Soil Dynamics Committee (Ghayoomi): No update
 - ISSMGE Technical Committee on Unsaturated Soils (TC 106) (S. Houston/Miller)
 - i. David Toll/Adrian Russell announced the selection of venue for hosting PanAm-UNSAT 2021: The 3rd Pan American Conference on Unsaturated Soils: Rio de Janeiro, Brazil, November 2021

- ISSMGE Technical Committee of Energy Geotechnics (Sanchez): Brief update on activities
 - TRB AFP60 Engineering Behavior of Unsaturated Soils (Zapata): Brief update on activities
 - ASTM D18.04 Hydrologic Properties and Hydraulic Barriers (McCartney): No update
6. Awards (McCartney)
- Awards from the 2017 cycle:
 - i. Sandra Houston successfully nominated for the First Distinguished Pan American Lecture on Unsaturated Soils, which was delivered on November 14th, 2017 at the PanAm-UNSAT 2017 conference, Dallas, Texas
 - Nominations
 - i. Ning Lu nominated for the Norman Medal by the Committee on Engineering Geology; supporting letter provided by our committee.
 - ii. Jorge Zornberg nominated for the Peck Award by the Committee on Geoenvironmental Engineering; supporting letter provided by our committee.
 - Deadline for TC106 awards (Sandy and Jerry)
 - i. Adrian Russell indicated that paper awards will be announced soon; nominations should be submitted to TC106 through Sandy and Jerry.
7. Progress on Webinar Series (Zhang)
- Webinars offered so far (2010 – 2016):
 - i. Introduction to unsaturated soils (Fredlund). January 2010.
 - ii. Laboratory methods for unsaturated soils (Likos/Padilla). April 2010.
 - iii. Collapsible soils (S. Houston/Miller). December 2010.
 - iv. Design of stiffened slabs on grade on shrink-swell soils: A new approach (Briaud/King). April 2011.
 - v. Unsaturated soil applications to pavements (Siekmeier/Zapata). August 2011
 - vi. Constitutive behavior of unsaturated soils (Hoyos/Zhang). November 2011.
 - vii. Estimating Unsaturated Soil Properties for Shear Strength and Volume Change (Vanapalli/W. Houston). January 2012.
 - viii. Design and analysis of water balance covers (Benson). April 2012.
 - ix. Measurement of Soil Suction in the Field for Geotechnical Engineering Applications (Puppala/Fredlund). March 2013.
 - x. Unsaturated Soil Mechanics in Slope Stability (Lu/Godt). April 2013.
 - xi. Thermal Behavior of Unsaturated Soils (McCartney). March 2015.
 - xii. Stiffened Slab on Grade on Shrink Swell Soils (Briaud). November 2016.
 - Recent/Future webinars (Zhang)
 - i. Foundations on Expansive Soils (Chao/Murthy). Offered on March 15, 2017, 11:30am – 1:00pm (Eastern Time). To be offered again on March 2, 2018.
 - ii. Stiffened Slab on Grade on Shrink Swell Soils (Briaud). Offered on May 31, 2017, 11:30am – 1:00pm (Eastern Time). To be offered again: Date TBD.
 - iii. Climate-Suction Flux Boundary Conditions (D. Fredlund/Wilson).
 - iv. Slope Stability: Impacts of Surface Flux Conditions (Rahardjo/M. Fredlund).
 - v. Design of Capillary Barriers for Mitigation of Frost Heave (Stormont).
 - vi. Others?
8. Progress on Special Issues in Journals:

- Special issue of *Journal of Performance of Constructed Facilities* (ASCE) on “Unsaturated Soil Related Geo-Hazards,” Guest Editors: Zhang & Bate. Reviews ongoing.
 - Special issue of *Journal of Engineering Mechanics* (ASCE) on “Mechanics of Unsaturated Porous Media,” Guest Editors: Lu & Buscarnera. Reviews almost completed.
 - Special issue of *Sustainable Civil Infrastructures* (Springer) on “Advances in Characterization and Analysis of Expansive Soils and Rocks,” Select Papers from GeoMEast 2017 Conference, Sharm Elsheikh, Egypt, July 15-19, 2017, Guest Editors: Hoyos & McCartney. 16 papers published.
 - Proposed special issue on “Unsaturated Soil Dynamics and Earthquake Engineering Applications.” Guest Editors: Ghayoomi & Hoyos. Still seeking possible “host” journal, suggestions welcomed.
9. Update on Special Projects (Hoyos)
- Reaching out to local ASCE and/or GI chapters (funded: \$2,000 for FY 2018). TCC funding for last two years has helped increase committee membership.
 - i. Each presenter is budgeted up to \$750 to support airfare, per diem, and associated expenses to travel to local ASCE or GI chapters and deliver their presentations.
 - ii. Two (2) funded presenters in FY 2016: Geoff Chao, John McCartney.
 - iii. Seven (7) funded presenters in FY 2017: Dunja Peric, Claudia Zapata, Xiong Zhang, Ning Lu, Xiaoyu Song, Xinbao Yu, Giuseppe Buscarnera.
 - iv. Requests for presenters for FY2018, please contact Laureano, John and Bill including a brief abstract and information on the local ASCE/G-I chapter.
 - Special Issue of GEO-STRATA on “Energy Geotechnics” (Sanchez)
 - i. This effort is still in the planning stage.
 - ASCE’s On-Demand Webinar Series (Zhang)
 - i. Webinars recorded will be considered for ASCE’s on-demand series.
 - ii. For those not yet recorded, a repeat will be considered so that a recording could be made.
10. Website Update (McCartney)
- Committee website housed on new GI website, and it is currently only partially functional.
 - Waiting for GI to continue development on the website to be able to upload files (past minutes/agendas, announcements, etc.).
11. Other Business
- Iraj Noorany encouraged reaching out to practitioners who are involved with organizations not partnered with the ASCE or the Geo-Institute (e.g., CalGeo in California, CAGE in Colorado, the Minnesota Geotechnical Society, etc.)
12. Meeting Adjourned at 8:40am