

Geo-Institute Soil Properties and Modeling Committee
Geo-Congress 2022 Spring Meeting
Tuesday March 22, 2022, 7:00 – 9:00 PM EST

Meeting Location:

Room: E216AB
Charlotte Convention Center
501 S College Street
Charlotte, NC 28202

Connection Information:

Join Zoom Meeting

<https://uark.zoom.us/j/87099404562?pwd=OUp2NjJ5V3pzaVN5VitsSU5YNjNYdz09>

Meeting ID: 870 9940 4562

Passcode: a=?HPsH7

One tap mobile

+13017158592,,87099404562#,,,,*68416012# US (Washington DC)

+13126266799,,87099404562#,,,,*68416012# US (Chicago)

Agenda

1. Welcome and Introductions (Barry)
 - *List of attendees (members): Michelle Barry; Giuseppe Buscarnera; Brina Montoya; Thomas Lin; Ning Lu; Sheng Dai; Buka Nweke; Nadarajah Ravichandran; Ryan Beemer; Cassie Rutherford; Marcelo Sanchez; Nick Hudyma; Mike Gomez; Alejandro Martinez; Diane Moug; Mostaqur Rahman; Krystina Scott; Brad Keelor*
 - *List of attendees (guests): Pegha Ghasemi; Mohsta Kurami*
2. Approval of Meeting Minutes from December 2021 teleconference (minutes attached to this document)
 - *The minutes of the past meeting were approved.*
3. The Soil Properties & Modeling committee was awarded with Committee of the Year this year!
 - *Congratulations to everyone and thanks for all that you do for our committee and field!*
4. Update from TCC (Bandini)
 - 4.1. More committee involvement planned for conference sessions and paper reviews going forward
 - *A liaison will be needed between the committee and upcoming conference organizers to better plan sessions and paper reviews.*
 - *Brina Montoya is part of the organizing committee for 2023 and has volunteered to serve as a liaison.*
 - *Interested committee members are also welcome to volunteer for this position.*
 - 4.2. Message from the President

- *G-I encourages the involvement of practitioners in technical committees and the diversity of the committee membership. Committee members are encouraged to involve colleagues from industry who may be interested in joining the committee.*
- *Committee-led special projects are usually welcome and have considerable chances of success. Committee members are welcome to suggest potential projects. Proposals are due mid-to-late August.*

4.3. ISSMGE collaboration and engagement

- *All committee members engaged in the activities of ISSMGE technical committees are encouraged serve as a liaisons for SP&M.*
- *Matt Evans has agreed to serve as the liaison for TC105.*

4.4. Geo-Congress 2023

- *As mentioned above, committees are requested to identify liaisons to coordinate the committee activities.*

5. Update from G-I/ASCE (Scott)

- *The G-I Web Conference 2022 will be held on December 5-9, 2022 (registration opens Oct. 1st, proposals needed around July 1 time frame).*
- *A new student research series is being developed, meant to highlight research led by students and practice their communication skills. Committee members are welcome to encourage their students to participate.*
- *Additional activities currently ongoing are ASCE workshops, webinars and a virtual speakers program.*

6. G-I and ASCE Awards

6.1. Awards Subcommittee

- *SP&M has a subcommittee consisting of Mike Coryell (chair), Mustafa Al Saleh and Alejandro Martinez. Additional members are welcome to join to continue the success of SP&M in recognizing high-quality works in our technical area. The Chair's term will end September 2022.*
- *Committee members are encouraged to nominate papers for awards. Nominations will start being reviewed in July. The award guidelines are available at this link:*

<https://www.geoinstitute.org/committees/technical-committees/soil-properties-and-modeling/subcommittees-and-initiatives>

6.2. Individual Awards

- *The committee led the nomination, in conjunction with the EMI Granular Materials Technical Committee, of Giuseppe Buscarnera for the Huber Civil Engineering Research Prize for his outstanding contributions in research in Civil Engineering. Currently awaiting announcement of recipient.*
- *Alejandro Martinez won the Arthur Casagrande Professional Development Award for his outstanding contributions in the field of geotechnical engineering.*

- I encourage everyone to think of colleagues worthy of nomination for ASCE Awards: <https://www.geoinstitute.org/about-us/awards>. Please email nominations directly to me. Following the committee guidelines (link below). Nominations are due around the August-October timeframe.

<https://www.geoinstitute.org/committees/technical-committees/soil-properties-and-modeling/subcommittees-and-initiatives>

- Some awards to consider:
 - Baker Award, Wallace Hayward (G-I achievement award for geotechnical engineers)
 - Carl L. Monismith Lecture on Pavement Engineering (G-I paper award for pavement research)
 - Casagrande Professional Development Award, Arthur (ASCE achievement award for geotechnical engineers)
 - Harry Schnabel Jr. Award (G-I achievement award for geotechnical engineers)
 - Kapp Foundation Engineering Award, Martin S. (ASCE achievement award for geotechnical engineers)

7. Update from Special Projects Subcommittee (Lin and van Paassen)

7.1. The first year of the special project “Solidifying Bio-mediated Soil Improvement Methods in GeoTechTools” is underway.

- About the project: Project objectives include thoroughly characterizing bio-mediated soil improvement into GeoTech Tools to expand the dissemination of the technologies to practitioners and potentially lead to new applications
- Project chaired by Leon van Paassen and Hai Lin, and advisory subcommittee consisted of: Jason DeJong, Michael Gomez, Alejandro Martinez, Brina Montoya and Hamed Khodadadi Tirkolaei
- Current project status update from Thomas Lin and Leon van Passen.
- Please contact Thomas if you would like to be involved and offer help in the project.
- *Two entries will be used. One will be based on the MICP technique led by Jason DeJong. The second entry will be based on the MIDP technique developed by Leon Van Passen.*
- *The funding level for these projects is on average between \$10,000 and \$15,000. The budget of these projects is free of overhead and can be used for student salary, but not faculty salary.*

7.2. We can submit more than one proposal as a committee, so please let me know if you have ideas for the upcoming year and would like to volunteer to lead or participate in the effort. Proposals are due around the end of August.

- *An example of project ideas was discussed in relation with the use of site characterization techniques to quantify density, water content, and other spatially distributed properties (Diana).*
- *Another example of idea discussed during the meeting involves the development of virtual field trips with interactive audio-visual content and educational training related with challenging engineering projects (Cassie).*

7.3. Past Special Project (Barry & Khasawneh):

- The committee roster has been updated and will be cross-referenced with Google form.
- Draft presentations will be circulated during the January-May time frame and finalized.
- Opportunity to network while providing service to the community through this project.
 - These presentations can also be a fabulous resource for future webinars or web conference presentations by the committee.
 - Fits well into the speaker series initiative from the G-I.

8. Other project or web conference ideas?

8.1. Following the December 2021 Teleconference, Bob Bachus suggested a topic for the "Educating the Geos" GeoStrata article, but we did not end up contributing

- Topic idea (Bachus): gather and report feedback from educators who actively engage practicing professionals in their classes, and schools which have active Advisory panels that influence curriculum development and delivery.
- Possible collaboration with TRB technical committee AKG50
- Any interest in this or similar projects?
- *Although this idea was eventually not pursued, it was discussed that similar opportunities may still be available and the initiative could be revived if enough committee members give traction to it. It was suggested that a possible place to start could be requesting feedback from practitioners serving as guest lecturers in the context of courses offered by the committee members.*

8.2. Other options from TCC meeting

- DIGGS and GeoTechTools
- Committee led initiatives (collaborations with DFI or other groups, diversity and inclusion)

9. Committee Website (Lin & Barry)

9.1. *The members were encouraged to take a look at the committee website and consider submitting News and Events to help populate the page. Points of contact are Michelle Barry and Hai Lin.*

<https://www.geoinstitute.org/committees/technical-committees/soil-properties-and-modeling>

10. Paper opportunities

10.1. *Alejandro Martinez will edit a special issue on Bio-inspired Geotechnics" in the Acta Geotechnica journal. Submission deadline: September 30th, 2022.*

11. Upcoming and Recent Committee Activity

11.1. State of the Practice (SOP) speaker at Geo-Congress 2022

- The committee successfully nominated Wystan Carswell for a SOP talk titled, “Using Advanced Finite Element Method (FEM) Modeling and Soil Property Measurements in Dense Urban Development”.
- Andrew Whittle gave an SOA/SOP talk with Patricia Culligan titled, “Climate Change and the Role of Geosystems Research for Mitigation and Adaptation”

11.2. Sessions for Geo-Congress 2022

- The committee led the organization of a panel on “Characterization and Modeling of Mine Tailings: from Risk Assessment to Early Warning” (Marika Santagata & Giuseppe Buscarnera)
- The committee co-organized with the Soil Improvement Committee a session on “Recent Developments on Bio-Mediated Soil Improvement Methods” (Montoya and VanPaassen)
- Matt Evans and Long Chen led the organization of a Soil Properties and Modeling” session
- Mike Gomez co-organized a session with Jorge Zornberg on “Innovative Materials and Geosynthetics”
- Quishi Chen co-organized a session with Alba Yerro on “Computational Geotechnics”

11.3. *Diana (?) organized a session at the Lifelines 2021-2022 conference (January 31 - Feb 4). Committee members attended it and provided positive feedback about it.*

11.4. *The International Symposium of Frontiers in Offshore Geotechnics (ISFOG 2020) will take place in August 2022.*

11.5. *The International conference on scour and erosion was organized in October 2021.*

11.6. *The international conference in Energy Geotechnics is upcoming (April 2022). Marcelo Sanchez is among the organizers.*

11.7. *Several committee members (e.g., Buscarnera, Regueiro) are organizing sessions related with the theme of SP&M at the upcoming EMI 2022 conference (May 2022).*

12. Updates from Other Committees

- *It was proposed to engage the SP&M members on topics related with NSF’s initiative “Navigating the new arctic”, especially in relation to permafrost degradation, on which stronger coordination in the area of geotechnics may lead to more cohesive effort. Depending on the level of interest, this may lead to the formation of a subcommittee.*

13. Adjourn
