

ASCE GEO-INSTITUTE

ENGINEERING GEOLOGY & SITE CHARACTERIZATION COMMITTEE MEETING MINUTES

Sunday March 15, 2009
5:00 PM – 9:00 PM
2009 International Foundation Congress and Equipment Expo
Orlando, FL

Meeting Attendees:

Aaron Budge	aaron.budge@mnsu.edu
Anand Puppala	anand@uta.edu
Amy Cerato	acerato@ou.edu
Paul Mayne	paul.mayne@gatech.edu
Mike Lewis	mlewis@bechtel.com
Roman Hryciw	romanh@umich.edu
Nick Hudyma	nhudyma@unf.edu
John McCartney	john.mccartney@colorado.edu
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Jeff Keaton	jrkeaton@mactec.com
Bill Yu	xxy21@case.edu
Khalid Alshibli	alshibli@lsu.edu

1. Review and Approval of minutes from 2008 meeting

Anand Puppala moved to accept, seconded by Amy Cerato – motion passed

2. Update from Technical Liaison (Roman Hryciw) and TCC meeting (Nick Hudyma)

a) ASCE website redesign happening soon (9 months +). Committees will be able to set up websites, templates to be provided.

b) Anand Puppala nominated to continue as Awards Chair (see 2c).

c) Committee members are to send their names (or nominate others) if interested in serving as Vice Chair, Secretary or Awards Chair of the EG&SC Committee. Nominations for these positions should be submitted to Nick Hudyma by 15 April 2009.

d) TCC reviewed the EG and SC committee report and has approved the committee for 3 more years.

e) Two committee meetings are now required each year. A conference call may be one of these. Plan on a conference call in the early fall to meet this requirement.

f) There is some special projects funding available (\$1000 - \$3000 projects) for committee "seed money" to hold meetings, create webinars, etc. Perhaps such funding could be used towards preparations for the specialty conference? Continuing education is making an effort to create more webinar possibilities – EG&SC could work towards such an option. The board of governors is looking at building relations with AEG, EG&SC could develop efforts to grow that relationship.

g) Lots of discussion was had with respect to webinars. Jason de Jong would like to visit with EG&SC to develop a series of webinars.

h) Geo-Strata – EG&SC issue just came out – everyone was pleased with the results.

i) We need to make a concerted effort to increase the diversity of the committee (practitioners, women, etc.)

j) Sustainability addressed by the committee.

k) Student participation (graduate students) in committees is encouraged (these students need to be student members of ASCE .)

3. Submitted Reports

a) Annual Report (submitted Dec. 2008) – as given.

b) Triennial Report (submitted Dec. 2008) – as given

4. Immediate Action Items:

a) Committee Membership

- An e-mail was sent out to all "current" committee members, 16 of the 38 indicated they wanted to remain active members.
- It was suggested that 16 was a good size and that we may not want to make substantial efforts to attract many additional members.
- However, several additional practitioners and/or women on the committee would be encouraged.
- Nick Sitar is considered to be an emeritus committee member.
- There are several "dead" e-mail addresses that need to be checked.
- It's difficult to obtain new members, but those NOT involved should be removed. A follow-up e-mail will be sent to those not responding (**Nick Hudyma – Action Item**). Those wanting to be considered active that do not attend committee meetings regularly should be involved with paper reviews, etc. to support the committee.
- A suggestion was made to include areas of expertise in the committee membership list (**Nick Hudyma – Action Item**).
- What can we do to solicit new members? The Geo-Strata issue will help. The committee really is in very good shape overall.
- Skype.com is a useful tool that can be used to set up a conference call for the fall.
- It was suggested that the committee move forward with approximately the same membership.

b) Upcoming Events

GeoFlorida 2010 – West Palm Beach

- Three sessions to be conducted by EG&SC committee, as provided in the meeting agenda:

ADVANCES IN INSTRUMENTATION AND DATA ACQUISITION FOR SITE GEO-CHARACTERIZATION (JEFF KEATON – EG&SC)

Recent developments in instrumentation and data acquisition provide useful technological advancements for characterizing geotechnical site conditions. The technologies that are being used include can be categorized as either intrusive or non-intrusive techniques. Non-intrusive techniques include various surface and down-hole geophysics (3- and 4-D applications), terrestrial and airborne laser scanning, and terrestrial photogrammetry. Intrusive techniques include advances in field testing methods including cone penetration testing, standard penetration testing, and pressure meter testing.

ADVANCES IN IN-SITU TESTING FOR GEO-ENGINEERING ANALYSIS AND DESIGN (MURAD ABU-FARSAKH & PAUL MAYNE – EG&SC)

There has been increasing interest towards the use of in-situ testing technology for evaluating engineering properties of geomedia. Unlike laboratory tests, in-situ tests are performed under actual field conditions without the possibility of

specimen disturbance. These tests provide faster, repeatable, more accurate, and more reliable results. Numerous methods have been proposed in the literature to incorporate derived in-situ testing soil parameters in the analysis and design of many geotechnical facilities and structures. This session will be devoted to advanced in-situ testing methods, interpretations, and technologies for geotechnical design applications, such as shallow and deep foundations, embankments, and retaining structures. The in-situ test methodologies will include cone and piezocone penetration tests (CPT and CPTu), standard penetration tests (SPT), pressuremeter tests (PMT), flat plate dilatometer tests (DMT), and dynamic cone penetration tests (DCP).

**CHARACTERIZATION OF PROBLEMATIC SOILS
(JOINT SESSION WITH USAT & SOIL PROPERTIES COMMITTEES)
(NING LU & DAVID ARELLANO)**

Unsaturated Soils Committee and Soil Properties Committee would like to propose a joint session on problematic soils. Problematic soils such as expansive clays and collapsible loess are widely distributed around the world and cause many problems in foundations and applications such as highway embankments, earth dams, and other infrastructure. The problems are highly related to climatic variations under unsaturated soil conditions. Characterizations of problematic soils still remain a great challenge because volumetric strain of such soils is typically large, often up to several hundred percent upon wetting or drying. The proposed session welcomes papers from research fronts in innovative laboratory and field testing techniques of problematic natural and remolded or compacted soils, new advances in theoretical developments in characterizing stress, strain, and constitutive relationships under static and dynamic loads, and new practice methodologies to remediate problematic soils.

- Ning Lu and David Arellano submitted the session proposals.
- Abstracts are due on 15 April 2009, with full papers due by 15 July.
- EG&SC committee members are encouraged to submit (and review) papers for this Congress.

GeoRisk 2011 - Atlanta

- Mid-April, session proposals need to be submitted.
- Potential session topics for GeoRisk
 - Variability and Uncertainty
 - Site Characterization for Hazards
 - Engineering Geology for Actuarial Purposes (Insurance Actuaries, etc.)
(i.e. Dave Perkin's work in Earthquake/Ground Motion)
 - 3-D site characterization (UK has lots going on – British Geological Survey, etc.)
3-D visualization
 - "Failure" discussion – factor of safety versus deformation criteria
 - * Risk is expressed in dollar value and/or lives lost.
 - * Failure should be deformation that exceeds a threshold.
 - EG&SC view of selected failures (case history-type session) / Lessons learned in EG&SC
(Jeff Keaton to write up a call for papers. **Jeff Keaton – Action Item**)
Tampa drilled shaft sinkhole failure, panel discussion, etc.
 - Anyone else with other ideas for a session topic?
- Joint sessions with Unsaturated Soils, Problem Soils need collaboration up front.
- Have Nick check with Sandy (Sandra Huston?) when session submissions are received
(to facilitate collaborative efforts) – (**Nick Hudyma – Action Item**)

ISSMGE (September 2012)

- International Society of Soil Mechanics and Geotechnical Engineering
- ISC – International Site Characterization
- Recife, Brazil
- Coutinho (contact in Brazil)

AEG 2009, IAEG 2010 (locations listed on AEG website)

- AEG 2009 in Lake Tahoe – abstracts due 01 April
- IAEG 2010 in New Zealand – abstract portal open until July

CPT10

- Upcoming abstract deadline (27 March)
- Huntington Beach, California – May 2010 - ~ 300 people anticipated

GeoShanghai 2010

- Boshon @ University of Tennessee – contact
- 8 GSP's at last GeoShanghai
- Abstract deadlines have passed but submissions MAY still be possible

Unsat 2010

- Barcelona, Spain

17th International Conference on Soil Mechanics

- 05-09 October 2009

c) Website and Special Projects Funding

- EG&SC actually HAS a website, it's just not up to date.
- A proposal to update the website (by Amy Cerato – University of Oklahoma) was partially funded.
- The site is currently run through Anand P. at UT Arlington
- A less-confusing web address could be established for \$75 per year

www.egsc.net or **gi-egsc.net** or something like that could link to UT Arlington or OU.

- Membership lists (with caution for privacy issues), the early history of the committee, and other things could be included on the webpage (i.e. the fact that EG&SC was the first committee of ASCE and it was organized by Karl Terzaghi.)
- We could fill in the blanks for the committee history. Sorting through ASCE records could provide member lists, etc. to allow contacts to be made to earlier committee members.

d) Webinars

- Webinars are voice-over PowerPoint sessions that are fully interactive
- Phone or chat screen options are available for interaction
- There is currently a big push for such webinars for PDH's for continuing education
- There is also a push with respect to teacher training
- Site Characterization as a Webinar/series?

- The FHWA CPT-users group (about 10 DOT's that are very active) runs a webinar initiated by FHWA which is given by DOT personnel.
- EG&SC should form a subcommittee to set up a plan for the webinars. Start with the basic, rudimentary material and build on that.
 - Geologic mapping, core logging for engineers, RQD for you and me, Foundation mapping, etc.
- The initial recording is live and can be purchased
- Carlton H. will find out details about the rights for webinars (**Action Item – Carlton Ho**)
- Come up with a list of topics for EG and SC groups, including a "wish list" of big name speakers
- Nick will e-mail a call for topics for potential webinars (**Action Item – Nick Hudyma**)
- Brown bag discussion for companies
- Target audiences – broad, with a wide variety of potential topics and interests

e) GeoStrata EG&SC issue coming out soon – thanks to all the contributors!

f) DIGGS Effort

- An e-mail was sent out by Nick H. for interested individuals (Mike Lewis and Aaron Budge volunteered)
- The effort intends to develop a global database of geotechnical data in a common format
- The GeoInstitute wants to know what role EG&SC can play in this development. This will tie in with DOT representatives who are also involved in the development.
- Data **structure** for the data exchange system is a primary focus
- Kent Wray is finding out more information as to the direction things are going
- There IS interest within the EG&SC group
- Should/will ASTM or NIST take over this effort?
- Stay tuned...
- Roman H. will corner Ed Kavazanjian from the Exec. Committee to find out more (**Action Item - Roman Hryciw**)

g) New committee chair for EG&SC

- Have Nick serve one more term as chair
- Elect a vice-chair (or chair-elect) to fill the position at the end of the next term
- E-mail nominations to Nick H. by 15 April

5. Future Action Items:

a) Specialty Conference – make a GeoCongress?

- Propose a Specialty Conference, see what TCC comes back with (**Action Item - ???**)
- November or early December 2013 or 2014?
- Discussion of potential time conflicts
- Check on the first week of January 2014

- San Juan City, Puerto Rico probably the best location
- Proposal prepared by conference chairs (**Action Item - Anand Puppala and Miguel Pando**)
- Submit proposal to CCC and TCC

b) Bi-annual Newsletter

- Two-page newsletter to be posted on website
- Show activities of various committee members
- Committee members could contribute something to the newsletter
- Perhaps increase to quarterly or bi-monthly?
- Committee business, additional communication between committee members

c) Interactions with other Engineering Geology committees (AEG, IAEG, Canada and Mexico)

- Include such groups in newsletter correspondence? Other ideas?

MOTION TO ADJOURN – Meeting adjourned at 8:00 pm