Subcommittee on Geotechnical Asset Management (GAM) – AKG00(1)

https://trb-gam.weebly.com

Monday January 10, 2021 7:30 to 10:00 PM – Eastern Marriott Marquis, University of DC & Catholic Remote Participation Teams Link provided at end of agenda

MEETING AGENDA

BUSINESS and ANNOUNCEMENTS (20 minutes)

- 1. Introduction by Co-Chairs and Deputy-Chairs Including mechanics of our web-based meeting (Scott Anderson, BGC Engineering, Subcommittee Co-Chair)
- 2. Deputy-Chairs: Michelle Mann (NMDOT/USACE) and Michael McDonnell (Connecticut DOT)
- 3. Approval of last year's minutes (All)
- 4. TRB Announcements (Nancy Whiting, TRB)
- 5. FHWA Update (Silas Nichols/Khalid Mohamed, FHWA)
- 6. GAM Subcommittee Website: trb-gam.weebly.com (Darren Beckstrand, Landslide Technology, Subcommittee Co-Chair)

2022 Sponsored Sessions (and others relevant)

- 1. Sunday, January 09 09:00 12:00 AM ET: Workshop 1005: Modalopoly—What Will You Risk?: A Game of Performance, Asset, and Risk Management
- Sunday, January 09 01:30 PM 04:30 PM ET: Workshop 1028: Transportation Earthworks: Minimizing Risk and Enhancing Resiliency
- 3. Sunday, January 09 01:30 PM 04:30 PM ET: Workshop 1034: Railway Asset Management and the State of Good Repair
- 4. Sunday, January 09 07:00 PM 09:00 PM ET: Rockfall Management Subcommittee, AKG10(1)
- 5. Monday, January 10 08:00 AM 09:30 AM ET: Stability Problems in Engineering Geology
- 6. Monday, January 10 10:30 AM 12:00 PM ET: Moisture Measurement for Improved Geostructure Performance
- 7. Monday, January 10 04:00 PM 05:30 PM ET: Transportation Earthworks on Unstable Ground
- 8. Monday, January 10 07:30 PM 10:00 PM ET: Geotechnical Asset Management Subcommittee, AKG00(1)
- 9. Tuesday, January 11 01:30 PM 05:30 PM ET: Geotechnical Instrumentation and Modeling Committee
- 10. Wednesday, January 12 08:00 AM 12:00 PM ET: Engineering Geology Committee
- 11. Wednesday, January 12 04:00 PM 05:30 PM ET: Advances in Landslides Analysis and Control Subcommittee, AKG10(2)
- 12. Thursday, January 13 09:00 AM 12:00 PM ET: Exploring the Role of Data Interchange and Artificial Intelligence in Future Bridge and Foundation Design, Performance, and Resiliency

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2022 Annual Meeting – Washington, D.C.

Prior Business

- ACTION: Syntheses awarded and announcement of questionnaires distributed following the meeting: Design Practices for Rock Slopes and Rockfall Management, NCHRP Synthesis 20-05/Topic 52-18. Synthesis is in final NCHRP review and should be published this spring.
- ACTION: NASEM Committee on Geological and Geotechnical Engineering study "Corrosion of Buried Steel" initiated this year and will have a virtual workshop open to the public on March 9-10, 2021. <u>Information here.</u>
- 3. TPF-5(459) Pooled fund project "Developing and Calibrating Fragmental Rockfall Models using Physics Engines", WashDOT Lead state.
- 4. FHWA/Puerto Rico Peer Exchange https://prltap.org/eng/wpcontent/uploads/2020/01/FINAL_GAMPE-Proceedings_January-30-2020.pdf

Announcements

- GeoCongress 2022, Charlotte, NC, March 20-23, 2022
- Highway Geology Symposium in Asheville, NC, May 23-25, 2022 Abstract submission date last week
- NCHRP Synthesis 20-05/Topic 53-18 Synthesis Moisture Measurement for Foundations and Slopes (Link) Look for survey questionnaires soon.

Past Meetings

- 2020 13th National Conference on Transportation Asset Management, Boston, MA
 Postponed to August 10-12, 2021 (virtual)
- AEG in San Antonio, Texas, September 18 26, 2021
- Geo-Extreme, ASCE Geo-Institute, November 7-10, 2021, Savannah, Georgia (in person)

PRESENTATIONS

- Manuel Eicher Geobrugg Geobrugg's Guard System (15 mins)
- Jeff Zavitski Deighton The integration of the geotechnical hazards into an overall asset management plan and analysis using Vermont and CDOT as examples (15 mins)

RESEARCH NEEDS STATEMENT GENERATION

This section is built around three starting points for RNS. We likely won't advance all three in parallel and they may evolve quite a bit during our committee discussion, but we'd like to have at least one going forward, and others shelf-ready. Format of discussion will be brief presentation(s) followed by discussion, followed by assignment of volunteers and a champion to lead development.

RNS 1: Estimating nationwide geotechnical asset performance degradation rates.

Presentations:

- Scott Anderson or Mark Vessely on Markov models for landslide accelerations (5 mins)
- Nicole Oester Mapes on CDOT/CSM rock slope deterioration (5 mins)
- Darren Beckstrand on MDT Deterioration Estimation (5 mins)

Discussion and assignment of Champion and volunteers (20 mins)

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RNS 2: Building system resilience to impacts of extreme weather and a changing climate through GAM tools and approaches.

Presentations:

- Mark Vessely on BC flood observations (5 mins)
- Scott Anderson on Arkansas River Flooding, Oklahoma or Northern Europe observations (5 mins)
- Darren Beckstrand on GAM Inventory and Event Recording as Critical First Steps in Understanding Resilience (5 mins)

Discussion and assignment of Champion and volunteers (20 mins)

RNS 3: Using LiDAR datasets and Earth Observation satellites for hazard mapping for GAM and resilience

- Scott Anderson on lidar or InSAR examples (5 mins)
- Bob Group on CDOT Glenwood Canyon (5 mins)

Discussion and assignment of Champion and volunteers (20 mins)

CLOSURE AND ADJOURNMENT

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Microsoft Teams meeting

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