

# Purdue Geotechnical Society Workshop Program

Friday May 5, 2023

Burton D. Morgan Center, Purdue University, West Lafayette, IN

## Resilience, Sustainability and Geotechnics

### Presentation Abstracts

7:45 a.m. Breakfast: coffee, juice, rolls, and fruit

8:15 a.m. **Opening of Workshop and Welcome:**

*Luna Lu, Associate Dean of Faculty, College of Engineering & Acting Head, Lyles School of Civil Engineering, Purdue U.*

### MORNING SESSION

**Moderator:** *David Espinoza, Geosyntec Consultants*; **Coordinators:** *Hannah Cupples & Mohammad Asad, Purdue U.*

8:30 a.m. **Keynote Lecture - DATA AND DATA MANAGEMENT: THE MISSING LINK IN SUSTAINABLE GEOTECHNICAL PRACTICE**

*Robert C. Bachus, Geosyntec Consultants*

9:15 a.m. **THE GREAT LAKES TUNNEL PROJECT**

*Luis A. Avila, WSP*

9:35 a.m. **UNDERGROUND CONSTRUCTION- THE ORIGINAL GREEN INFRASTRUCTURE**

*A.J. McGinn, Brierley Associates*

9:55 a.m. **BREAK**

10:40 a.m. **INFRASTRUCTURE RESILIENCE IN UNDERGRADUATE EDUCATION AND RESEARCH**

*Kyle Kershaw, Rose-Hulman Institute of Technology*

11:00 a.m. **EXPERIMENTAL STUDIES ON THERMO-MECHANICS OF SANDS**

*Yize Pan, Northwestern University*

11:25 a.m. **GROUP PHOTO**

11:50 a.m. **LUNCH – Burton Morgan Center Café (MRGN 102)**

### AFTERNOON SESSION

**Moderator:** *Malek Smadi, GeoTill Engineering*; **Coordinators:** *Kanika Gupta & Juan Jimenez Pirajan, Purdue U.*

1:20 p.m. **Keynote Lecture - MAKING A DIFFERENCE: LESSONS FROM LOUISIANA COASTAL MASTER PLAN**

*David Johnson, School of Industrial Engineering & Department of Political Science, Purdue University*

2:05 p.m. **REAL-TIME TUNNELING RISK FORECASTING USING VIBRATIONS FROM THE WORKING TBM**

*Yunyue Elita Li, Department of Earth, Atmospheric and Planetary Sciences, Purdue University*

2:25 p.m. **ASSESSMENT OF KINEMATIC ROCK SLOPE FAILURES IN MUDURNU VALLEY, TÜRKIYE**

*Arzu Arslan Kelam, Middle East Technical University*

2:45 p.m. **BREAK**

3:20 p.m. **SOIL-STABILIZING POTENTIAL OF FOOD INDUSTRY BYPRODUCTS**

*Arvin Farid, Boise State University*

3:40 p.m. **MODELLING THE DYNAMICS OF SLOW-MOVING LANDSLIDES DRIVEN BY PRECIPITATION**

*Xiang Li, Northwestern University*

4:00 p.m. **SITUATION AWARENESS: OBSERVATIONS AND PRELIMINARY LESSONS FROM THE FEBRUARY 2023 EARTHQUAKES IN TÜRKIYE**

*Ayhan Irfanoglu, Lyles School of Civil Engineering, Purdue University*

4:25 p.m. **WORKSHOP CLOSURE**