

Purdue Geotechnical Society Workshop Program

Friday April 12, 2024

Burton D. Morgan Center, 1201 Mitch Daniels Blvd, Purdue University, West Lafayette, IN

Geotechnics of Dams

Presentation Abstracts

7:30 a.m. Breakfast: coffee, juice, rolls, and fruit

8:00 a.m. **Opening of Workshop and Welcome** – *Philippe Bourdeau, Purdue University*

MORNING SESSION

Moderator: *Antonio Bobet, Purdue*; **Coordinators:** *Juliana Pereira & Luis Garzon Sabogal, Purdue*

8:05 a.m. Keynote Lecture

PERFORMANCE MONITORING OF DAMS – BEST PRACTICES FOR INFORMED DECISION MAKING *Georgette Hlepas, U.S. Army Corps of Engineers*

8:50 a.m. **DAM SAFETY CHALLENGES DURING DECOMMISSIONING OF UPSTREAM TAILING DAMS**

Juan Jose Gutierrez & Cagri Cinkilic, Rizzo International

9:10 a.m. **SHIFTING PERCEPTIONS OF DAM SAFETY USING RISK**

Rachael Bisnett, Stantec

9:30 a.m. **APPLICATION OF RISK ANALYSIS FOR DAMS**

Aaron J. Fricke, Christopher B. Burke Engineering

9:50 a.m. BREAK

10:20 a.m. **ACCOUNTING FOR INFLUENCE OF CONFINING STRESSES IN EVALUATING LIQUEFACTION TRIGGERING OF LARGE EARTHEN DAMS**

Russell A. Green, Virginia Tech

10:40 a.m. **SITE-SPECIFIC SEISMIC HAZARD ASSESSMENTS FOR DAM SAFETY: KEY INPUTS AND CONSIDERATIONS**

Justin Beutel, Gannett Fleming

11:00 a.m. **RAISING CARDINAL DAM USING A UNIQUE DOUBLE-SIDED MSE WALL SYSTEM – 10 YEAR-POST CONSTRUCTION OBSERVATION**

Mike Rowland, S&ME

11:20 a.m. **INTRODUCTION TO THE G-I MIB**, *Gabriela Nolivos, WSP, MIB Chair*

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

11:40 a.m. **LUNCH** – Burton Morgan Center Café (MRGN 102)

AFTERNOON SESSION

Moderator: *Darrin Beckett, Terracon*; **Coordinators:** *Kanika Gupta & William Hurdle, Purdue University*

1:00 p.m. Keynote Lecture

FLOW FAILURE ASSESSMENT FOR DAMS AND EMBANKMENTS

Timothy D. Stark, University of Illinois at Urbana-Champaign

1:45 p.m. **EARTHQUAKE-INDUCED CRACKING OF EARTH DAMS: LESSONS LEARNED FROM 385 CASE STUDIES**

Juan Jimenez-Pirajan, Purdue University

2:05 p.m. **GEOTECHNICAL CHALLENGES TOWARDS GATUN DAM SEISMIC STRENGTHENING**

Daniel Muschett, Purdue University

2:25 p.m. BREAK

3:00 p.m. **DAM REHABILITATION GUIDED BY GEOPHYSICAL CHARACTERIZATION**

John Mundell, Mundell & Associates

3:20 p.m. **CASE HISTORY OF TUTTLE CREEK DAM SEISMIC REMEDIATION PROJECT**

Geoffrey Henggeler, U.S. Army Corps of Engineers

3:40 p.m. **THE USE OF GEOTECHNICAL TECHNIQUES IN DAM CONSTRUCTION AND REMEDIATION**

Rick Deschamps, Nicholson Construction

4:00 p.m. **WORKSHOP CLOSURE**