

Sunday, April 7

3:00 pm - 6:00 pm **Registration Desk Open** *Hilton Lower Level*

Monday, April 8

7:30 am - 7:00 pm **Registration Desk Open** *Hilton Lower Level*

8:30 am - 12:00 noon **Conference Opening Session** *Boulevard ABC*
Recognition of Outgoing Board Members and Committee Chairs
Legacy Lecture Series: Dr. Donald Bruce, President of Geosystems, L.P.

1:30 pm - 3:30 pm **Committee Meetings Session 1** *Various*

3:30 pm - 4:00 pm **Break** *Various*

4:00 pm - 6:00 pm **Committee Meetings Session 2** *Various*

6:00 pm - 7:30 pm **Kickoff Reception and Exhibition Opening** *Salon CD, Lower Level*

Tuesday, April 9

7:00 am - 5:30 pm **Registration Desk Open** *Hilton Lower Level*

8:30 am - 10:15 am **Plenary Session I — Engineering in the Second City** *Grand Ballroom, 2nd Floor*
Moderator — Rachael Bisnett, Stantec
Welcome and Introductions, Dean Durkee, USSD President, Gannett Fleming, Inc.
Welcome from the Conference Local Host, FERC Chicago
History of the Chicago Hilton, Kevin Griebenow, FERC Chicago
Flood Relief from Chicago's TARP System, Kevin Fitzpatrick, Metropolitan Water Reclamation District of Greater Chicago
USACE Electric Fish Barrier — Protecting the Great Lakes, Chuck Shea, USACE Chicago District
Development of Chicago's Skyline through Foundation Engineering, Bill Walton, GEI
Award Presentations
 *Excellence in the Constructed Project
 *Lifetime Achievement

10:15 am - 10:45 am **Break in Exhibit Hall** *Salon CD, Lower Level*

10:45 am - 12:15 pm **Concurrent Technical Sessions Track 1** *Salons A1-A5, Lower Level*
1A Advocacy
1B Scholarship Finalist Presentations
1C Concrete I
1D Dam Safety I
1E Construction (General)

12:15 pm - 1:30 pm **Lunch in Exhibit Hall** *Salon CD, Lower Level*

1:30 pm - 3:30 pm **Concurrent Technical Sessions Track 2** *Salons A1-A5, Lower Level*
2A Embankment Dams I
2B Earthquakes (Concrete)
2C Conference Theme I
2D H&H (Hydraulics)
2E Construction (Rehabilitation)

3:30 pm - 4:00 pm **Break in Exhibit Hall** *Salon CD, Lower Level*

3:30 pm - 6:00 pm **Poster Session in USSD Pavilion** *Salon CD, Lower Level*

4:00 pm - 6:00 pm **Committee Meetings Session 3** *Various*

6:00 pm - 7:30 pm **Reception in Exhibit Hall** *Salon CD, Lower Level*

2019 Conference and Exhibition Program

Wednesday, April 10

7:00 am - 6:00pm	Registration Desk Open	<i>Hilton Lower Level</i>
8:30 am - 10:15 am	Plenary Session II — Dam History and Future Trends Moderator — Rachael Bisnett, Stantec USSD Historical Milestones , Keith Ferguson, HDR 30+ Years of Dam Rehabilitation in the United States , Greg Paxson and Brian Toombs, Schnabel Engineering; Elena Sossenkina, HDR; Nate Snorteland and Rebecca Ragon, USACE; and Stephanie Williams, HDR Australia's Risk-Based Dam Safety Regulation , Shane McGrath, ANCOLD President United States Regulatory Future , Commissioner Cheryl A. LaFleur, FERC Award Presentations *Public Safety and Security for Dams Recognition *USSD Scholarships *President's Award	<i>Grand Ballroom, 2nd Floor</i>
10:15 am - 10:45 am	Break in Exhibit Hall	<i>Salon CD, Lower Level</i>
10:45 am - 12:15 pm	Concurrent Technical Sessions Track 3 3A Embankment Dams II 3B Environment/Decommissioning 3C Public Safety, Security and Emergency Management 3D Dam Safety II 3E Conference Theme II	<i>Salons A1-A5, Lower Level</i>
12:15 pm - 1:30 pm	Lunch in Exhibit Hall	<i>Salon CD, Lower Level</i>
12:15 pm - 1:30 pm	Young Professional Mentoring Luncheon (pre-registration required)	<i>Grand Ballroom</i>
1:30 pm - 3:30 pm	Concurrent Technical Sessions Track 4 4A Concrete II 4B Earthquakes (Embankments) 4C Conference Theme III 4D H&H (Hydrology) 4E Construction (Seepage)	<i>Salons A1-A5, Lower Level</i>
3:30 pm - 4:00 pm	Break in Exhibit Hall	<i>Salon CD, Lower Level</i>
4:00 pm - 6:00 pm	Concurrent Technical Sessions Track 5 5A Levees 5B Monitoring 5C Dam Safety III	<i>Exhibit Hall Various</i>
5:00 pm - 6:00 pm	USACE TownHall Meeting	<i>Salon A3, Lower Level</i>
6:30 pm - 9:30 pm	Closing Party (ticketed)	<i>The Crystal Gardens</i>

Thursday, April 11

7:30 am - 1:00 pm	Workshop Registration	<i>Salon A, Lower Level</i>
8:00 am - 12:00 noon	TARP Project Field Tour (extra fee)	
8:00 am - 12:00 noon	Workshop 1: Flood Consequence Estimation with HEC-LifeSim	
8:00 am - 12:00 noon	Workshop 2: Introducing ICOLD Bulletin 177 on Roller Compacted Concrete	
8:00 am - 12:00 noon	Workshop 3: Threshold and Action Levels	
11:30 am - 1:30 pm	Lunch	<i>Salon A, Lower Level</i>
1:00 pm - 5:00 pm	TARP Project Field Tour (extra fee)	
1:00 pm - 5:00 pm	Workshop 1: Flood Consequence Estimation with HEC-LifeSim (continued)	
1:00 pm - 5:00 pm	Workshop 4: Seismic Evaluation of Concrete Dams	
1:00 pm - 6:00 pm	Workshop 5: Emergency Communication Primer	

1A: Advocacy

Room: Salon A2

Moderators: Yulia Zakrevskaya, Stantec; and Keith Ferguson, HDR

Dam and Levee Safety Leaders Library

Lee Mauney, Bureau of Indian Affairs

Federal Emergency Management Agency (FEMA) Dam Safety Technical Assistance Program

Lesley Edgemon, Argonne National Laboratory
 Kyle Pfeiffer, Argonne National Laboratory;
 James Demby, Federal Emergency Management Agency
 Preston Wilson, Federal Emergency Management Agency
 Molly Finster, Argonne National Laboratory

Rehabilitation of High Hazard dams - FEMA Grants to Non-Federal Sponsors

Edward Beadenkopf, Atkins - a member of the SNC Lavalin Group
 James Demby, Federal Emergency Management Agency
 Jon Keeling, Stantec

Practical Retrofit at Low-Head Dams to Reduce Drowning

Rollin Hotchkiss, Brigham Young University
 Ronald McGhin, Kiewit Engineering Group, Inc.

1B: Scholarship Finalist Presentations

Room: Salon A4

Moderators: Tina (Stanard) McMartin, Freese and Nichols, Inc.; and Stuart Harris, TVA

TBA

1C: Concrete I

Room: Salon A1

Moderators: Hillery Venturini and Jerzy Salamon, Bureau of Reclamation; and David Queen and Soheil Razavi Darbar, BC Hydro

A Novel Approach for Characterizing Shear Strength of Mass Concrete Lift Joints: Experimental Procedure and Empirical Model

Jeff Yathon, BC Hydro
 Samita Chakrabarti, BC Hydro
 Osmar Penner, BC Hydro
 Evan Lindenbach, Bureau of Reclamation
 Brent Bergman, BC Hydro
 Soheil Razavi-Darbar, BC Hydro

Seismic Input and Topographic Effects: A Rigorous Approach to Simulating 3D Dam-Foundation Interaction in LS-DYNA

Mina Shahbazi, BC Hydro
 Osmar Penner, BC Hydro
 Brent Bergman, BC Hydro

Design and Construction of Seismic and Reliability Upgrades of Ruskin Dam

Saman Vazinkhoo, BC Hydro
 David Queen, BC Hydro
 David Lautner, BC Hydro
 Minjin Luo, BC Hydro

Best Practices for Seismic Response Analysis of Concrete Dams: A Proposed Industry Guideline

Osmar Penner, BC Hydro
 Brent Bergman, BC Hydro
 Jeff Yathon, BC Hydro

1D: Dam Safety I

Room: Salon A3

Moderators: Emily Schwartz, Black & Veatch; and Miguel Rocha, Bureau of Reclamation

How to Make a Business Case to Justify Dam Safety Improvements?

Ali Reza Firoozfar, HDR
 Keith Moen, HDR
 Adam Jones, HDR

Decision Making in Dam Engineering

Daniel Osmun, HDR
 William Fiedler, HDR

Pilot Study for Dam Safety Considerations Related to Low Failure Probability High Consequence Facilities

Dom Galic, Bureau of Reclamation
 Miguel Rocha, Bureau of Reclamation

Safety Culture - What it Is and How it Will Help Improve Dam Safety

Ahmad Faramarzi, Analysis Planning and Management Institute, Inc.
 Charles Hutton, Hutton Consulting
 Miguel Rocha, Bureau of Reclamation

1E: Construction (General)

Room: Salon A5

Moderators: Jared Williams, Great Lakes E&I; and Susan Hou, San Francisco Public Utilities Commission

Revitalization of the Kentucky River System

Benjamin Webster, Stantec

Calaveras Dam Replacement Project: From Conception in 2003 to Reality in 2018

Michael Forrest, AECOM
 Erik Newman, AECOM
 Susan Hou, SFPUC
 John Roadifer, AECOM
 Tedman Lee, SFPUC
 Daniel Wade, SFPUC

Calaveras Dam Replacement Project - Challenges of Constructing the Second Dam

Jim McClain, Black & Veatch
 Susan Hou, San Francisco Public Utilities Commission
 Manuel Morejon, Dragados USA, Inc.

Rockfill Dams Built in Northern Quebec in The 70s And 80s (The James Bay Complex) and More Recently, on La Romaine River: Design, Construction and Behaviour

Vlad Liviu Alicescu, Hydro-Québec

In the Exhibit Hall

- *Discover the latest in products and services from top industry exhibitors**
- *Networking opportunities abound during breaks, lunches, and receptions**
- *Conference attendees can earn points and win prizes with the new USSD Gamification**
- *Exhibitors will compete for 'Best in Show' and 'Most Creative' awards**
- *USSD Pavilion is the place to meet colleagues and recharge your devices**

Tuesday, April 9 — 1:30 pm -3:30 pm
CONCURRENT SESSIONS — TRACK 2

2A: Embankment Dams I

Room: Salon A2

Moderators: Justin Stoeber, AECOM; and Gabriel Martinez, Stantec

Seepage-Induced Internal Instability Testing for Dam Safety Assessments

Paul Slangen, Geosyntec
Jonathan Fannin, University of British Columbia

Comparison of Methodologies for Evaluating Internal Erosion of Earthen Embankment Dams Using a Case Study

Clinton Carlson, Geosyntec
Wesley MacDonald, Geosyntec
Glenn Rix, Geosyntec
Lucas DeMelo, Geosyntec
Caleb Douglas, TVA

Numerical Approach to Modeling Internal Erosion in Embankment Dams and Levees

Biswajit Dasgupta, Southwest Research Institute
Gordon Wittmayer, Southwest Research Institute
Goodluck Ofoegbu, GNO Modeling Research

Study of Embankment Cracking for Small Dams

Ana Avendano, Universidad Nacional de Colombia
Guillermo Ávila, Universidad Nacional de Colombia

Selection Factors and Performance of Overtopping Protection Alternatives

Jeremy Young, Schnabel Engineering
Thomas Hepler, Schnabel Engineering

2B: Earthquakes (Concrete)

Room: Salon A4

Moderators: Melanie Walling; GeoEngineers; and Mark Schultz, USACE

Vector-Valued Hazard for Liquefaction Assessment at a Dam Site

Melanie Walling, GeoEngineers

Developing Design Ground Motions for the Expansion of Gross Reservoir

Christine Weber, Stantec
Dina Hunt, Gannett Fleming

State-of-the-Art Dam-Foundation Interaction Procedure for Non-linear Arch Dam Analysis

Gurinderbir Singh Sooch, Hatch
Dan Curtis, Hatch

Crossvalley Performance of Piers

Iman Ghorbani, Hatch
James Rutherford, Hatch
John Werner, Hatch
Max Mantola, Hatch
John Stanton, University of Washington

Comparing Simplified Added Mass and Advanced Numerical Methods for Evaluating Hydrodynamic Effects on Free-Standing Intake Towers

Harpreet Hansra, DRW, Division of Safety of Dams
Vojislav Cvijanovic, California DRW, Division of Safety of Dams
Ian Maki, DRW, Division of Safety of Dam

2C: Conference Theme I

Room: Salon A1

Moderators: Darrin Harris, Black & Veatch; and Bob Eichinger, Stantec

Santee Cooper Upstream Slope Protection Project - An Owner's Perspective

Denise Bunte-Bisnett, Santee Cooper
John Osterle, WSP

Extreme Repurposing: from Guard Wall to Cofferdam to Dam at Monongahela River Locks and Dam No. 4

Timothy Hampshire, DLZ National, Inc.

Evaluation and Stabilization of Steep Rock Slopes to Mitigate Rockfall Hazard during Construction

Erik Newman, AECOM
Holly Nichols, California DWR
Jennifer Dean, California DWR
Nicholas Hightower, California DWR
Andrew Tate, California DWR
Jennifer Bauer, Appalachian Landslide Consultants

Roller Compacted Concrete Placed with a High Density Paver for Use as a Flood Barrier - Application to TVA Dam

Husein Hasan, TVA
Quincy Anderson, Barnard Construction Company, Inc.
Aaron Nottis, TVA

Cedar Rapids, Iowa - A Second Chance for a Flooded City

Matthew Redington, HDR
Michael Butterfield, HDR

2D: H&H (Hydraulics)

Room: Salon A3

Moderators: Brian Crookston, Utah State University; and Steve Barfuss, Utah State University

Gate Dynamic Analysis Using CFD

Joe Groeneveld, Hatch Associates Consultants, Inc.
James Rutherford, Hatch Associates Consultants, Inc.
John Werner, Hatch Associates Consultants, Inc.
Iman Ghorbani, Hatch Associates Consultants, Inc.
Namho Kim, Hatch Associates Consultants, Inc.
Nikou Jalayeri, Hatch Associates Consultants, Inc.

Performance of a Wire Rope Hoist Leaf Gate during Emergency Closure (Unbalanced Loading)

Nathan Cox, McMillen Jacobs Associates
Ethan Thompson, USACE

Physical Model of Spillway and Reservoir Debris Interaction

Kent Walker, Bureau of Reclamation

Flow Modeling of a Steep, Curved Spillway Chute

Abbas Dorostkar, HDR
Sarah Christian, HDR

Using Stochastic Modeling to Assess Operational Risk at Center Hill Dam

Jim Garner, USACE
David Bogema, USACE

2E: Construction (Rehabilitation)

Room: Salon A5

Moderators: Masood Kafash, AECOM; and Scott Korab, Ballard Marine Construction

Risk Considerations For Reconstruction of Nepal Hydroelectric Project Damaged by Landslides, Earthquakes and Flooding

Michael Bruen, Stantec
Zbigniew Matus, Stantec
Bikram Sthapit, Bhote Koshi Power Corporation

Upgrades for a Second Century at Duke Energy's Bridgewater Hydroelectric Project

Brian Reinicker, HDR
Brian Chrisman, HDR
Brad Keaton, Duke Energy
Jon Wise, Duke Energy
David Gerlach, HDR

Buckeye Lake Dam Remediation: Unique Design & Construction at a Unique Structure

Boyd Howard, Gannett Fleming, Inc.
Robert Kline, Gannett Fleming, Inc.
Daniel Stare, Gannett Fleming, Inc.
James Hilovsky, Ohio Department of Natural Resources

From Ideal to Unconventional: Case Study of the Atoka Dam and Spillway Rehabilitation

Brad Kirksey, Freese & Nichols, Inc.
John Rutledge, Freese & Nichols, Inc.
Nicole Wiesner, Freese & Nichols, Inc.
Larry Hare, Oklahoma City Water Utilities Trust
Andrew Mishler, Oklahoma City Water Utilities Trust

A Rehabilitated Outlet for St. Charles No. 2

Micah Smidt, RJH Consultants, Inc.
Michael Graber, RJH Consultants, Inc.
Eric Hahn, RJH Consultants, Inc.

**Tuesday, April 9 — 3:30 pm -6:00 pm
POSTER SESSION**

On the Probabilistic Nonlinear Seismic Analysis of Concrete Arch Dams

Omid Abdi, Arup
Mohammad Amin Hariri Ardebili,
University of Colorado Boulder

Seismic Earth-Dam Damage Identification

Richard Armstrong, CSU, Sacramento
Tadahiro Kishida, Khalifa University, UAE
Dongsoon Park, K-water, South Korea

Design and Construction of Dam Rehabilitation with Weighted Filter Overlay

Doug Carr, AECOM
Gabe Lang, AECOM

Designing from Inside the Box: Developing an Innovative Temporary Closure Structure for Two USACE Dams with Numerous Design Constraints

Miroslav Kurka, Mead & Hunt, Inc.
Jeffrey Anderson, Mead & Hunt, Inc.

Increasing the Resiliency and Reducing the Carbon Footprint of Earthen Flood Defense Structures with High Performance Turf Reinforcement Mat Reinforced Vegetation

Drew Loizeaux, Propex Operating Company
Randy Thompson, Propex Operating Company

Seismic Fragility Relationships for Embankment Dams from Empirical Performance Data

Glenn Rix, Geosyntec Consultants, Inc.
Lynnae Luettich, Georgia Institute of Technology
Chris Hunt, Geosyntec Consultants, Inc.

Design Details - Concrete Chute Spillways

Paul Rizzo, RIZZO International, Inc.

A Study on Seismic Effects of Gate-Wall Interaction on Spillway Gates in an Existing Spillway

Anurag Singhal, HDR

A Numerical Study of the Effect of Hysteresis on Transient Seepage Flow

Fred Tracy, Engineer Research and Development Center
Maureen Corcoran, Engineer Research and Development Center

Three-Dimensional Finite Element Analysis of Levee Through Seepage Considering End-Around Effects

Joseph Weber, Loyola Marymount University
Robert Jaeger, GEI Consultants, Inc.
Mark Stanley, HDR
Page Hval, Loyola Marymount University

**Wednesday, April 10 — 10:45 am - 12:15 pm
CONCURRENT SESSIONS — TRACK 3**

3A: Embankment Dams II

Room: Salon A2

Moderators: Clinton Carlson, Geosyntec Consultants; and Chris Krage, GEI Consultants

3B: Environment/Decommissioning

Room: Salon A4

Moderators: Ali Reza Firoozfar, HDR; and Glen DeWillie, Kleinschmidt Group

3C: Public Safety, Security and Emergency Management

Room: Salon A1

Moderators: Megan Puncke, Black & Veatch; and Stewart Vaghti, Gannett Fleming

3D: Dam Safety II

Room: Salon A3

Moderators: Bruce R. Rogers, USACE; and Rafael Prieto, Gannett Fleming, Inc.

3E: Conference Theme II

Room: Salon A5

Moderators: Seth Krause, WSP; and Andrew Verity, Terracon Consultants

Numerical Evaluation of Strain-Rate Effects on Strain-Softening and Localization in Saturated Clays

Tyler Oathes, University of California, Davis
Ross Boulanger, University of California, Davis

Weak Rock Foundation Characterization From Laboratory Cyclic Testing

Evan Lindenbach, Bureau of Reclamation
Richard Bearce, Bureau of Reclamation

Determination of Material Properties for a Fine-grained Embankment Foundation Layer

Robert Rinehart, Bureau of Reclamation
Peter Irey, Bureau of Reclamation

Evaluation of Earthquake-Induced Cracking of Embankment Dams

Lelio Mejia, Geosyntec Consultants
Ethan Dawson, AECOM

Hydraulic Modeling of a Nature-Like Fishway using 2-Dimensional HEC-RAS

Michael Hross, Kleinschmidt
Jennifer Jones, Kleinschmidt
Chris Goodell, Kleinschmidt
Trevor Lykens, Kleinschmidt
Jose Zayas, Cube Hydro Partners, LLC

Retrofitting Fish Passes at Dams and Weirs: International Best Practice, Knowledge Gaps, Current Research and Foreseeable Developments

Marq Redeker, CDM Smith

Dam Decommissioning in Mississippi: Maintain It or Drain It

Johnathon Atkins, MS DEQ

Dam Removal Allows Boardman River to Reclaim Natural Alignment

Craig Seger, Contech Engineered Solutions
Dan DeVaan, AECOM

Making an Entrance - Security Upgrades at the Entrance to Boundary Hydroelectric Project

Brandan Vavrek, Seattle City Light
Jon Gray, Seattle City Light

Public Safety - Emergency Management in a Crisis

William Foos, Gannett Fleming
Matthew Balven, Gannett Fleming

CFD Modelling to Evaluate and Improve Public Safety Around Dams

Benjamin Israel Devadason, Gannett Fleming, Inc.
Paul Schweiger, Gannett Fleming, Inc.

Biodynamic Responses for Evaluation of Public Safety at Dams

Brian Crookston, Utah State University
Steven Barfuss, Utah Water Research Laboratory

Evaluation of Hydrological and Geological Hazards to Support PFMA of Large High Hazard Dams

M. Logan Cline, RIZZO
Cagri Cinkilic, RIZZO
Tom Edwards, RIZZO
Priyanka Jain, East Bay Municipal Utility District
Doug Raszewski, RIZZO
Joe Tam, East Bay MUD

Streamlined Dam Break and Inundation Boundary Assessment for Medium/High Hazard Dams in NC

John Dorman, North Carolina Emergency Management
Dean Goodison, Atkins-SNC Lavalin
Gary Thompson, North Carolina Emergency Management

Evaluating Human Consequences of Dam-Break Floods Using DSS-WISE™ HCOM Module

Mustafa Altinakar, U. Mississippi
Marcus McGrath, U. Mississippi
Vijay Ramalingam, U. Mississippi
Kyle Burke Pfeiffer, Argonne National Laboratory
James E. Demby, FEMA
Gokhan Inci, FEMA

Predicting High Dam Flood Discharge-Induced Ground Vibrations with Improved Stochastic Transfer Functions

Yan Zhang, China Institute of Water Resources and Hydropower Research
Guoxin Zhang, CIWRHR
Yi Liu, CIWRHR
Songhui Li, CIWRHR

3D Ground Modelling for a Dyke Reconstruction Project in North Rhine-Westphalia, Germany

Myles Lawler, CDM Smith Europe GmbH
Oriol Ciurana, CDM Smith Europe GmbH
Aloys Kisse, CDM Smith Europe GmbH
Ilja Prinz, CDM Smith Europe GmbH

Improving Engineering Judgement Using 3-Dimensional Data Management Techniques

Nate Bolles, Black & Veatch
Andrew Higgins, Geosyntec
Rozh Mohamadameen, Tennessee Valley Authority

Using Technology and Old-Fashioned Detective Work to Predict Low-Level Outlet Tunnel Performance under Catastrophic Loading

Miroslav Kurka, Mead & Hunt
George Webb, Terracon

Automated Crack Width Calculation

James Rutherford, Hatch
John Werner, Hatch
Iman Ghorbani, Hatch
Colleen Woods, Hatch

Wednesday, April 10 — 1:30 pm -3:30 pm
CONCURRENT SESSIONS — TRACK 4

4A: Concrete II

Room: Salon A2

Moderators: Eric Kennedy, Federal Energy Regulatory Commission; and Robert Hall, Engineering Innovations, LLC

Concretes for Concrete Dams

Quentin Shaw, ARQ Consulting Engineers

Implementation of Bathymetric and LiDAR Surveys into Sliding Stability Assessment of Concrete Gravity Dams

Tarik Saichi, Polytechnique Montreal

Sylvain Renaud, Polytechnique Montreal
Najib Bouaanani, Polytechnique Montreal
Benjamin Miquel, Hydro-Quebec

Fontana Dam Spillway Crack Investigation

Michael Morrison, Tennessee Valley Authority
James Rossillon, Tennessee Valley Authority
Dan Curtis, Hatch Associates Consultants, Inc.

Performance-Based Assessment of Post-Tensioned Anchors in a Large Concrete Dam

Casey Gardner, Harvey Mudd College
Maggie Gelber, Harvey Mudd College
Andrew Pham, Harvey Mudd College
Dana ShangGuan, Harvey Mudd College
Flora Xia, Harvey Mudd College
Ziyad Duron, Harvey Mudd College
Robert Hall, Engineering Innovations, LLC

Application of Response Surface Meta-model in Probabilistic Analysis of Concrete Dams

Mohammad Amin Hariri-Ardebili, University of Colorado Boulder
Mohammad Noori, CalPoly
S.Mahdi Seyed-Kolbadi, X-Elastica LLC

4B: Earthquakes (Embankments)

Room: Salon A4

Moderators: Zara Plasencia, Consultant; and Biswajit Dasgupta, Southwest Research Institute

Development of Seismic Thresholds in ShakeCast for FERC Post-Earthquake Notification and Response

Justin Smith, Federal Energy Regulatory Commission
Edgar Salire, Federal Energy Regulatory Commission
Chris Wang, Federal Energy Regulatory Commission

Seismic Deformation of Different Size Embankments on a Spatially Variable Liquefiable Deposit

Nicholas Paull, University of California Davis
Ross Boulanger, University of California Davis
Jason DeJong, University of California Davis

Use of Horizontal to Vertical (H/V) Ambient Noise Measurements to Determine Natural Frequency of Embankment Dams

Albert Kottke, Pacific Gas and Electric
Emily Steen, Pacific Gas and Electric

Lessons Learned from Re-Evaluation of the Upper and Lower San Fernando Dams Using Current State of Practice in Numerical Modeling

Khaled Chowdhury, USACE
Raymond Seed, University of California, Berkeley
Vlad Perlea, AECOM
Michael Beaty, Beaty Engineering
Fenggang Ma, Kleinfelder
George Hu, USACE

Modulus Reduction and Damping Ratio of Compacted Earth Cores of Dams

DongSoon Park, K-water
Convergence Research Institute
Seong-Bae Jo, K-water
Convergence Research Institute

4C: Conference Theme III

Room: Salon A1

Moderators: Brandon Vavrek, Seattle City Light; and Travis Tutka, USACE

Thornton Composite Reservoir - Limited Accessibility Leads to Challenging Instrumentation and Monitoring

Hannah Maas, Stantec
Rachael Bisnett, Stantec
Louis Storino, Metropolitan Water Reclamation District of Greater Chicago

Case Study: Automated Movement Monitoring with Grouped AMTS in Prairie Du Sac Dam

Raphael Victor, Sixense Group, USA
Loic Galisson, Sixense Group USA
Zhangwei Ning, Sixense Group, USA

Implementing an Instrumentation Monitoring Program for the Staged Construction of the Red Rock Hydroelectric Project

Thomas Andrews, Stantec
Rachael Bisnett, Stantec
Hannah Maas, Stantec

Chicago Sanitary and Ship Canal at Lockport Rehabilitation Case Study

Thomas Mack, USACE
Andrew Goodall, USACE

Design and Construction of the Norway Hydroelectric Project Spillway Capacity Expansion

Manoshree Sundaram, Stantec
Jason Hedien, Stantec
Justin Darling, NIPSCO, LLC

4D: H&H (Hydrology)

Room: Salon A3

Moderators: Melinda Dirdal, Schnabel Engineering; and Om Prakash, California Department of Water Resources

Flood Model for the World-Record Rainfall from July 1942 Smethport, PA Storm - Supporting the Pennsylvania Probable Maximum Precipitation Study

Bill Kappel, Applied Weather Associates
Joe Bellini, Aterra Solutions

Inflow Design Flood Selection for Long Embankment Dams

Mike Gerlach, Stantec Consulting Services Inc.
Bob Eichinger, Stantec Consulting Services Inc.

Stochastic Framework for Flood Risk Analysis

Siamak Esfandiary, FEMA
Sean McNabb, FEMA
Andrew Bonner, AECOM
Mathew Mampara, Dewberry

A Holistic Evaluation of Potential Downstream Inundation for the Baker River Hydroelectric Project

Loring Crowley, Schnabel Engineering
Ali Tabrizi, Schnabel Engineering
Kevin Ruswick, Schnabel Engineering
Joshua Gile, Puget Sound Energy
Alex Rutledge, Schnabel Engineering

Dam and Levee Break Modeling with HEC-RAS Simulation and Risk Analysis (SimRAS)

Brent Travis, WEST Consultants, Inc.
Chris Bahner, WEST Consultants, Inc.
Gyan Basyal, WEST Consultants, Inc.
Brian Wahlin, WEST Consultants

4E: Construction (Seepage)

Room: Salon A5

Moderators: Dimitri Ivanov, Advanced Construction Techniques; and Philippe Bourdeau, Purdue University

A Dam Innovative Solution: Cutoff Walls and Pressure Grouting at Georgia's Richland Creek Dam

Eloy Ramos, Nicholson Construction
Craig Robinson, Piedmont Geotechnical Consultants
Brian Barkauskas, Nicholson Construction
Raphael Delhaye, Nicholson Construction

Lessons Learned from More Than 35 Years of Cofferdam Construction

Steve Jamieson, W. W. Wheeler & Associates, Inc.

Treating Excessive Foundation Seepage at a Dam Site in the Lower Himalayas

Joseph Kovacich, Stantec
Hafiz M. Kashif Bajwa, National Engineering Services Pakistan (NESPAK)

Practical Application of Seepage Analyses for Rehabilitation of Existing Dams and Levees

Lucas Carr, Geosyntec Consultants
Tom Cooling, AECOM
G. Richard Bird, AECOM
Scott Morgan, AECOM

Using Piezometer Data to Better Understand the Rehabilitation Performance of the C.W. "Bill" Young Regional Reservoir

Jason Valeria, Gannett Fleming, Inc.
Scott Burch, Gannett Fleming, Inc.

5A: Levees

Room: Salon A2

Moderators: Elena Sossenkina; HDR; and Adda Zekkos, University of Michigan

Hazard Potential Classification within Levee Safety Programs

Jasmine Austin, USACE
Rick Hauck, USACE

The Lower Wood River Levee Risk Informed Formulation Case History

Chris Redell, USACE
Jose R. Lopez, USACE

Intermittent Embankment Overtopping: Erosion Protection Options

Bryan Scholl, Watershed Geo
Brad Cooley, Watershed Geo

Levee Remediation Alternatives Analysis of a Partially Failed Rio Grande Levee in Brownsville, TX

Charlie Wildman, Arcadis, U.S., Inc.

Improving Levee Resiliency - Mitigating Failure Modes to Avoid Disasters in Great Britain and the United States

Robert Beduhn, HDR Engineering Inc.
Jonathon Simm, HR Wallingford

5B: Monitoring

Room: Salon A4

Moderators: John Hynes, Stantec; and Amanda Sutter, USACE

Case History on Monitoring Seepage on Large Zoned Embankment Dams

Thomas Solano, ISAGEN S.A. E.S.P.
Rafael Prieto, Gannett Fleming, Inc.

Phased Approach in Evaluating Existing Piezometers to Inform a Risk Assessment, Blakely Mountain Dam, Ouachita River, Arkansas

Suzanne Hess-Brittelle, USACE
Amy LeFebvre, USACE
Ryan Reves, USACE
Tracy Phillips, USACE

Jerry F Costello Lock and Dam Unwatering Monitoring

Lucas Krumwiede, USACE
Amanda Sutter, USACE
Sean Hibbits, USACE
Keith Thole, USACE
Samuel Ross, USACE

How Old is Too Old? Deciding When to Upgrade or Replace the Equipment in Automated Data Acquisition Systems

Greg Dutson, Canary Systems, Inc.
Darren Olguin, Canary Systems, Inc.
Daryl Jordan, Oglethorpe Power Corporation
Carol Leung, Los Angeles County Public Works
Martin Hieronymi, Brookfield Renewable

Applications of Underwater Acoustic Remote Sensing

Kenneth LaBry, Underwater Acoustics International, L.L.C.

5C: Dam Safety III

Room: Salon A1

Moderators: Mohammad Amin Hariri-Ardebili, University of Colorado; and Peter Haug, Ayres Associates

Use of Risk Assessment Information to Inform Design of Dams and Levees

Michael Sharp, USACE
Elena Sossenkina, HDR, Inc.
Noah Vroman, USACE

Managing Risk During Major Earth Fill Dam Seismic Retrofit Project

Scott Huntsman, Black & Veatch
Megan Puncke, Black & Veatch

How a Little Seepage and Minor Spillway Slab Displacement Led to Reservoir Restrictions and Remediation

Becky Allen, Kleinschmidt Associates
Keenan Goslin, Kleinschmidt Associates
Wade Osborne, Cornforth Consultants
Jeff Coffin, Kleinschmidt Associates

Simulating Spillway Gate Availability in Dam Safety Risk Studies

Gregory Baecher, University of Maryland
Robert Patev, USACE
Adiel Komey, University of Maryland

Trees on Dikes - Flood Protection Versus Ecological Landscape Planning?

Aloys Kisse, CDM Smith Consult GmbH, Bochum, Germany

The conference closing party will take place at the indoor one-acre botanical garden at historic Navy Pier. Event ticket is included with all full conference and guest registration fees.

This six-story glass atrium with a 50-foot arched ceiling holds over 80 live palm trees, lush foliage, and fountains.

A highlight of the evening will be these special announcements:

- * Outstanding paper awards
- * Exceptional Young Professional of the Year
- * FUNds Run/Walk results

Wander through the one-acre indoor tropical garden while enjoying various Chicago-themed foods and drink. Don't forget to take your selfie in the special photo booth to capture the moment. Surprise entertainment throughout the gardens promises to make this closing party the talk of the town.

Transportation will be provided at the Chicago Hilton to and from the Crystal Gardens.

