USSD 2025 Annual Conference & Exhibition

Draft Schedule (as of 4/11/25)

TUESDAY	Track 1	Track 2	Track 3	Track 4	Track 5
TUES. 10:30 am - 12:10 pm	**Dam Safety**	**Foundations**	**Levees**	**H&H**	**New Scholarship Presentations**
10:30- 10:55	A Hierarchical Description of Risk Analysis Results	GEOTECHNICAL DESIGN AND TESTING PROGRAM OF UNDERREAM ROCK ANCHORS IN A PROBLEMATIC FOUNDATION AT GARRISON DAM	Three-Dimensional Flow and Geometric Components of Backward Erosion Piping	Fountains of Estimates: High-hazard dam spillways and their PMPs across the Mid-Atlantic Region	
10:55- 11:20	Simplified SQRA Practicalities	FIND THE RIGHT BALANCE – ANCHORS VS. MASS CONCRETE FOR UPLIFT RESISTANCE: STEP 1 – IMPROVE FOUNDATION CHARACTERIZATION & REDUCE ANCHOR CAPACITY UNCERTAINTY	A Novel Technique for Levee Freeboard Determination in 2D HEC-RAS	Tiger Creek Regulator Spillway Replacement Alternative Selection and Design	
11:20- 11:45	CRITICAL RISK DRIVERS: LESSONS LEARNED FROM AN L3RA	Predicting the time-rate of rock scour for spillways and overtopping dams: A practical approach based on the Erodibility Index Method and field observations		Modeling Transient Life Loss: A Spatial Sampling Approach for Downstream Consequences	
11:45- 12:10	Integrating non-breach risk into dam and levee safety decisions	Dam "Re"-commissioning - Converting an Aging Liability to a Community Asset			
TUES. 1:20 pm - 3:00 pm	**Dam Safety**	**Concrete**	**H&H**	**C&R - Case Histories**	**Returning Scholarship Presentations**
1:20- 1:45	Concrete Chute Spillway Incident during the 2023 Weber Dam Flood of Record	Multi-Directional Effects in Seismic Analysis and Design of Concrete Hydraulic Structures	Adjusting to New Data– An Owner's Chronicle of the Effects of a PMP Study on a Portfolio of Dams	Tunneling a West Virginia Dam: A Modern John Henry Story	
1:45- 2:10	Incorporating Structural Failure Mechanisms with Uncertainty in a Risk Assessment Including Earthquake-induced Loss of Reservoir Control	Effect of Generalized Added Mass Matrix on Seismic Response of Concrete Dam with Inclined Surfaces	Erodibility Methodology Applications for Complex Geometries using CFD	Construction of a Dam Safety Modification Project: an Oklahoma Case Study	
2:10- 2:35	Incorporating a Rockfill Dam Overtopping Failure Mechanism in a Risk Assessment (bowles)	Stability Analysis of an Historic Dry Stack Masonry Dam in New Hampshire		Extending Morris Sheppard Dam's Legacy with a Long-Term Testing and Repair Program	
2:35- 3:00		Ambient vibration testing at 90 locations across a large dam		BARRIER WALL CONSTRUCTION FOR MOOSE CREEK DAM SAFETY MODIFICATION	
TUES. 3:20 pm- 5:00 pm	**Earthquakes**	**Special Topics**	**Foundations**	**Other Contemporary Issues**	**Public Safety, Security & EM**
3:20- 3:45	Seismic Fragility for the Wanapum Dam Left Embankment	A GUIDELINE FOR DESIGN PROGRESS ON DAM AND HYDRAULIC STRUCTURES PROJECTS	GEOTECHNICAL DESIGN AND TESTING PROGRAM OF UNDERREAM ROCK ANCHORS IN A PROBLEMATIC FOUNDATION AT GARRISON DAM	Retrofitting Sediment Management Systems at Dams	You Talkin' My Language??? The Importance of Clear and Relatable Language and Messaging in Emergency Action Planning
3:45- 4:10	M4.2 Earthquake Response of Oroville Dam	Multi-Generational Dams and Their Claim on Us	Predicting the time-rate of rock scour for spillways and overtopping dams: A practical approach based on the Erodibility Index Method and field observations	Open-loop configurations for pumped-storage hydropower – saving the cost of a reservoir, but is it worth it?	Public Safety in Dam Operations
4:10- 4:35		A Programmatic Approach to Develop Recent Graduates as Dam Safety Engineers		Uncovering Hidden Bias: The Role of Unconscious Bias in Management	Enhancing Watershed Regional Resilience through Collaborative Holistic Risk Management
4:35-5:00		AI: R-U-N?		Understanding the Climate Change Effects on Fragility and Risk Analysis in Dams	Read The Dam Sign

USSD 2025 Annual Conference & Exhibition

Draft Schedule (as of 4/11/25)

WEDNESDAY					
WED. 8:20 am - 10:00 am	**Concrete**	**C&R**	**H&H**	**Monitoring**	
8:20- 8:45	Analysis and retrofit of an existing headworks structure including the seismic interactions between the gate, structure, foundation, and reservoir.	Best Practices Using Blended Cements in Sustainable Infrastructure	Unveiling the Limits: Performing a SSPMP and Parameterizing a PMF Across the 73,000-Square-Mile Snake River Basin	No Time Like the Present – The Importance of Baselines	
8:45- 9:10	Sub-Modeling of 3D Nonlinear FEM Seismic Analysis of Concrete Dams	Steel Pipe, A Primer	Hydrologic Model Validation in an Ungaged Arizona Basin Utilizing Streamgage Data Reconstruction	Pressures In Karst Limestone Foundation During Tremie Concrete Placement of Secant Pile Barrier Wall	
9:10-9:35	Investigation of Reservoir Modeling Approaches for the Seismic Response of Concrete Dams	Soil Cement Slope Protection: What Has the Last 70 Years Taught Us?	An Interim Risk Reduction Spillway Inspection and Maintenance Program	West Silver Basin Dam - Performance of a Rockfill Dam with Asphaltic Concrete Central Core	
9:35- 10:00		Advanced geomembranes systems for underwater rehabilitation: evolution and recent projects	POTENTIAL LIFE-LOSS ESTIMATION WITH UNCERTAINTY USING LIFESIM FOR MACTAQUAC DAM ASSESSMENT	Using technology to map the baseline condition of one of the most complex Slab and Buttress Dams: A Case Study at Tiger Creek Dam	
WED. 10:20 am - 12:00 pm	**Dam Safety**	**Tailings**	**Concrete**	**C&R**	**Embankments - Field Investigation, Laboratory, Modeling**
10:20- 10:45	Innovations in 3D Fluid-Solid Coupled Modelling of Rock Scour for Dam Safety	A Tale of Two Risk Guidelines: Applying Tailings Dam Risk Strategies to Water Dams	Designing a Labyrinth Spillway to Resist Ice Expansion and Accumulation	North Michigan Creek Dam: Breathing Life into Aging Infrastructure Through Alternative Project Delivery	Gradational Effects on Residual Strength of Gravels
10:45- 11:10	Comparative Analysis of 2-D Stability Assessment for Concrete Gravity Dams: Insights from FERC, USBR, USACE, IS and CDA Standards	A framework to evaluate geotechnical response to dewatering activities in CCR and tailings	Concepts for Managing Debrbis Flows at Hydro Projects in Nepal	A Progressive Design-Build Approach to Expedite the Replacement of Lake Conestee Dam	Short-Interval SPT Blow Count Correction for Gravelly Soils: A Comparative Analysis
11:10- 11:35	Considerations for Designing an Erodibility Testing Program for Internal Erosion Risk Assessment		How does 3D roughness along concrete-rock interfaces affect the sliding stability of concrete gravity dams?	The Flying Chute - A new concept that would eliminate hydrojacking potential failure modes in concrete spillway chutes being developed by the Bureau of Indian Affairs Safety of Dams Program.	Piezometers at Action Levels – Emergency or Not?
11:35- 12:00			Insights on component interactions from a highly instrumented large dam		
WED. 2:10 pm - 3:00 pm	**H&H**	**C&R - Quality and Data Management**	**Dam Safety**	**Awards**	**Embankments - Investigation/Analysis/Seepage and Design etc**
2:10- 2:35	Near and Far Field 3D CFD Modeling of the Mactaquac Upstream Fish Passage Facility	Lessons learned through the evolution of USACE Data Management Specifications applied to Dam Construction and Rehabilitation	Novel Updates to Tropical Storm Remnant Precipitation Frequency Estimates for Enhanced Dam Safety Decision-Making in the Tennessee Valley		Not Too Many, Not Too Few | The Goldilocks' Approach to 'just the right' Amount of Geotechnical Investigation for the Wild Horse Reservoir Project
2:35- 3:00	Physical Modeling to Support the Design of Downstream Fish Passage at Trail Bridge Dam	Bringing Grout Data to Life: A 3D User Interface for Improved Monitoring	Development of a Risk Management Plan for Mactaquac Dam		Design of a Dam Crest Raise Using a Mechanically Stabilized Earth Wall
WED. 3:15 pm - 4:55 pm	**Dam Safety**	**Concrete**	**H&H**		
3:15- 3:40	Dam Safety Life-Loss Estimates Based on Case Histories	Performance of FRP Laminates under Flexure for Concrete Dam Retrofitting using Small- and Large-scale Tests	Model Calibration Strategies for Hydrologic Hazard Assessment of Coolidge Dam, Arizona		
3:40- 4:05	Key Considerations for Applying Consequences Analysis & Examples of Use	Evaluation of the bond performance of FRP repairs in dam settings	A 2D/3D Hybrid CFD Model to Optimize Your Spillway Design		
4:05- 4:30	21st Century Climate Challenges and Debris Disasters: How to assess debris models in the advent of record climate conditions and events	Concrete Dam Retrofitting using Carbon Fiber Reinforced Polymer Strands	Systematic Semi-Automated Breach Analysis of Long Embankment Structures		
4:30-4:55	Enhancing Dam Safety Instrumentation Review and Processing with Large Language Models (LLMs)	Bond Strength of Fiber Reinforced Polymer (FRP) Laminate Subjected to High Flow Conditions for Concrete Spillway Applications			