

Spring 2024 ENGINEERING DESIGN EXPO

Technical Presentations

<u>Session-Time</u>	<u>Link</u>	<u>Project Name</u>	<u>Project Sponsor</u>	<u>Facilitator</u>
Thursday, April 25, 2024 (2:00 – 5:00 pm)				
Session 1 (ME) – Zoom link & EP 234A				M. Swenson
• 2:00 pm		Hot Cell Window Cleaning	Idaho National Laboratory	
• 2:30 pm		INL Uranium, Glass & Dust Separation	Idaho National Laboratory	
• 3:00 pm		No Maintenance Bushing	Hyster-Yale	
• 3:30 pm		Vertically Opening Forklift Cab Door Window	Hyster-Yale	
• 4:00 pm		Automatic End of Arm Tool Changer	Bastian Solutions	
• 4:30 pm		Automated Ring Assembly Machine	Nightforce Optics	
Session 2 (CEE) – Zoom link & Idaho Commons, Crest-Horizon Room				R. Nielsen
• 3:00 pm		Liberty Park Terrace Apartments Phase II	Coffman Engineers	
• 3:20 pm		The Summit at 11 th	KPFF Consulting Engineers	
• 3:40 pm		Arcadia Lake Pump Station (CE)	Schnabel Engineering	
• 4:00 pm		Redesigning Thain and 10th Intersection in Lewiston, Idaho	Kittelson & Associates, Inc.	
• 4:20 pm		Snake River Road Improvements	CONSOR Engineers	
• 4:40 pm		Crow Pump Diversion	DOWL	
Friday, April 26, 2024 (2:00 – 5:00 pm)				
Session 3 (CS) – Zoom link & JEB331				B. Bolden
• 2:00 pm		Gamified Virtual Worlds and Computer Simulation	UI CS Dept.	
• 2:30 pm		A Computer Network-related Game for Educational Purposes	UI CS Dept.	
• 3:00 pm		Intensity-based Alignment of Laser Devices	Hansen Photonics	
• 3:30 pm		Modeling Cybersecurity Threats With a Ferris Wheel	UI CS Dept.	
• 4:00 pm		Empowering Health Through Design: ML Solutions for Breast Cancer...	UI CS Dept.	
• 4:30 pm		Using Deep Learning to Provide Feedback for Remote Physical...	UI CS Dept.	
Session 4 (ECE) – Zoom link & GJL 218				K. Sikes
• 2:00 pm		Arcadia Lake Pump Station (EE)	DC Engineering	
• 2:30 pm		The University's First Foray into CubeSat Payload Development	NASA ISGC/ARC	
• 3:00 pm		Make Household Power More Efficient Than Usual!	Idaho Power	
• 3:30 pm		Portable LED Athletics Scoreboard	Friday Night Flag	
• 4:00 pm		Smart Plank Inspection and Navigation for Timber Evaluation and...	Wildwood Grilling	
Session 5 (BE+ME) – Zoom link & EP 413				R. Qualls
• 2:00 pm		Bioreactor System to Explore Cell Response	Stanley Solutions & UI BE	
• 2:30 pm		Shock Circuit for Virtual Fence System	UI BE Dept.	
• 3:00 pm		Ember Generator for Forest Fire Simulation	UI CNR	
• 3:30 pm		A Burning Problem - Wildfire Smoke Generator	UI CNR	
• 4:00 pm		Relocation Guidance System for C-Arm Medical Imaging	Dr. Hiller	
• 4:30 pm		Steam Plant/Fisheries Wastewater Recapture	McKinstry	
Session 6 (ME) – Zoom link & EP 324A				P. Yu
• 2:00 pm		Snowmobile Tow-Behind Analysis Trailer	UI CSC	
• 2:30 pm		Controlled Velocity Projectile Acceleration Using Compressed Air	Vista Outdoor	
• 3:00 pm		Development of Low-Cost Process to create EMI Shield	SEL	
• 3:30 pm		Robotic Assembly of Photovoltaic Arrays	NASA ISGC	
• 4:00 pm		Prandtl-D: Advancing Autonomous UAVs for Wildfire Prevention	NASA ISGC	
• 4:30 pm		Skin Friction Rivet Analysis Using Oil Film Interferometry	Kodiak Aircraft	

Session 7 (ChemE) – [Zoom link](#) & BEL 346

M. Bernards

- 2:00 pm The Sustainable Application of a Pacific Northwest Biochar Off-Gas... C6 Forest to Farm
- 2:30 pm Electrolysis for Sustainable Generation WERC
- 3:00 pm Green Gas: Converting Renewable Energy to Synthetic Natural Gas Am. Inst. of Ch. Engrs