

# PROGRAM

## Educating Future Leaders for Inclusive, Culturally Vital, and Socially Responsive Engineering

April 18 – April 20, 2024

Advanced Engineering Building (AEB)



Thursday April 18, 2024	Description
3:00pm – 4:00pm	Labs in Science and Engineering Building Tour <a href="#">rsvp</a>
4:00pm – 5:00pm	Advanced Engineering Building Tour <a href="#">rsvp</a>

Friday April 19, 2024	Description	Location
8:30am – all day	Registration	Advanced Engineering Building
8:30am – 11:00am	Continental Breakfast/Brunch	The MakerSpace
9:15am – 10:15am	<b>Keynote Speaker:</b> Dr. Rachael D Robnett University of Nevada, Las Vegas	Flexitorium
10:15am – 10:30am	Welcome by Howard R. Hughes College of Engineering Associate Dean Yingtao Jiang	Flexitorium

### Session I

Time	Track I.A: Presentation Location: Room 140/145	Track I.B: Workshop Location: Room 150
10:35am – 11:50am	Exploring Perceived Student Experiences at a Hispanic Serving Institution From the Bottom Up: Amplifying Student Voices to Inspire Culture Change Adapting CAD Education for Visual Inclusivity Enhancing Fundamental Math Skills of STEM Students Through Math Games Instruction Determining Where and How to Teach Engineering Communication Skills	Designing and Implementing Oral Exams: How to Make Them Work and How They Can Positively Impact Your Course

11:55am – 1:30pm	<b>Lunch</b> <b>Location: The MakerSpace</b>	<b>Poster Presentation</b> ( <a href="#">poster details</a> ) <b>Location: The MakerSpace</b>
<b>Session II</b>		
<b>Time</b>	<b>Track II.A: Presentation</b> <b>Location: Room 150</b>	<b>Track II.B: Workshop</b> <b>Location: Room 140/145</b>
1:30pm – 3:15pm	<p>Group Ideation Processes with Generative AI: Exploratory Analysis of ChatGPT Prompting in a Collaborative Environment</p> <p>The Future of Engineering Design Education with Emerging AI Technology</p> <p>For Students, By Students: A Python Programming Manual for Structural Engineering Courses</p> <p>The Educational Advantages/Disadvantages of ChatGPT in Relation to Engineering Classes</p> <p>Student Opinions on Generative AI in the Classroom</p> <p>Leveraging the power of multi-modal AI technologies to build and scale generative AI applications</p> <p>Development of a Laboratory Course in Industrial Power and Control for Electrical Engineers</p>	Promoting Inclusivity through the Use of Concept-Based Instruction, Learning Assistants, and Adaptive Learning Modules
<b>Session III</b>		
<b>Time</b>	<b>Track III.A: Presentation</b> <b>Location: Room 140/145</b>	<b>Track III.B: Workshop</b> <b>Location: Room 150</b>
3:30pm – 5:30pm	<p>Course-Based Undergraduate Research in First-Year Engineering</p> <p>Engaging Preschool Students Through an Interactive Display Towed by an Autonomous Robot</p> <p>Designing an Iterative Research Kit Exchange Program for Remote High School Science (Evaluation)</p> <p>A Summer Engineering Internship Program Offered at a Liberal Arts University</p> <p>A Preliminary Study on the Impact of Lower-Division Mathematics Courses on Student Success in Electronics and Computer Engineering</p> <p>An Early College Experience for High School Students to Promote Careers in the Transportation Industry</p> <p>The Effect of the Flipped Classroom Approach in an Engineering Course</p> <p>Teaching Reinforced Concrete (RC) Design, Theoretical &amp; Practical Approach</p>	<p>Mental Health Workshop (ASEE – PSW sponsored workshop) by Drs Colleen E Bronner (UC Davis) &amp; Andrew Robert Danowitz (Cal Poly SLO)</p> <p style="text-align: center;"><a href="#">rsvp</a></p>
6:30pm – 9:00pm	<b>Banquet &amp; ASEE-PSW Award Presentation</b> <b>Keynote Speaker:</b> Kim Scott Vice President of Experience for Enchant	<b>The Redd Room at Thomas &amp; Mack</b>

<b>Saturday April 20, 2024</b>	<b>Description</b>	<b>Location</b>
8:30am – 10:00am	Registration	Advanced Engineering Building
8:30am – 11:00am	Continental Breakfast/Brunch	The MakerSpace
<b>Session IV: 9:00am – 10:15am</b>		
<b>Track IV.A: Workshop</b> <b>Location: Room 140/145</b>	<b>Track IV.B: Presentation</b> <b>Location: Flexitorium</b>	<b>Track IV.C: Presentation</b> <b>Location: Room 150</b>
Fostering an Inclusive and Socially Responsive Classroom Environment using 5-Minute Self-Regulation Strategies	Variation of Out-of-Class Assignments and Frequency on Course Performance in Upper-Division Structural Engineering Courses A Classroom Routine in an Introduction to Structural Design Course that Builds the Connection Between Education and Professional Practice Preparing Students to Master Hybrid and Co-Processing Methods for High Performance Computing High Endurance UAV Student Project Pedagogy as a Continuous Undergraduate Engineering Teaching Tool Generation Challenges	Using Nearpod to Improve Engagement in the Computer Science Classroom Understanding students' challenges in using their metacognition to enact effective learning strategies A Physicist and an Engineer Walk into a Bar Effect of group sizes on problem-based learning in engineering courses Combination of Teaching Strategies for Upper-Division Structural Engineering Courses
<b>Session V: 10:30am – 12:00pm</b>		
<b>Track V.A: Presentation</b> <b>Location: Room 140/145</b>	<b>Track V.B: Presentation</b> <b>Location: Room 150</b>	
Solar Farm Utilizing a Battery Energy Storage System Sacrificing Safety in the Name of Innovation: the OceanGate Titan Disaster The Kapawi Electric Boat System: Insight on Community-Partnered Senior Capstone Projects Optimizing Local Biomethane Formula for Net Energy Yields: Applying Industrial Engineering Methodologies to an Eco-Social Justice Problem A Framework for Multi-Disciplinary Student Teams Participating in a Design-Build Competition of a Sustainable and Affordable Housing The Green Seaport Power System Project as an Academia-Industry International Partnership	Assessment of Student Engagement in Virtual Reality Clinical Immersion Environments through Eye Tracking Enhancing Mobility for the Visually Impaired: A Community-Centered Capstone Project Empowering Computer-Supported Collaborative Learning with ChatGPT: Investigating Effects on Student Interactions The Impact of COVID-19 in an Online and On-Campus Software Engineering Program Hands-On Measurement and Instrumentation Course Accessibility for Visually Impaired Students Investigating the Effects of ChatGPT on Student Learning in Programming Courses	
12:00pm – 2:30pm	<b>ASEE-PSW Board Meeting (ROOM 150)</b>	