



**CALIFORNIA STATE
UNIVERSITY, LONG BEACH**

**38th ANNUAL STUDENT
RESEARCH
COMPETITION**

Showcasing excellence in scholarly
research, and highlighting creative
activity

Friday, February 27, 2026 | 9am-4pm
Held In-Person

Room Overview

Please go to your designated room in the Liberal Arts 2 Building (LA2). Rooms are separated by discipline. Please refer to the CSULB Map at the end of the program.

Room: LA2-100	Engineering & Computer Science
Room: LA2-104	Behavioral & Social Sciences
Room: LA2-106	Behavioral & Social Sciences
Room: LA2-107	Health, Nutrition, and Clinical Sciences
Room: LA2-108	Physical & Mathematical Sciences / Interdisciplinary
Room: LA2-120	Physical & Mathematical Sciences
Room: LA2-202	Education / Business, Economics, and Public Administration
Room: LA2-203	Humanities & Letters
Room: LA2-204	Biological & Agricultural Sciences
Room: LA2-205	Humanities & Letters
Room: LA2-206	Engineering & Computer Science
Room: LA2-208	Creative Arts and Design / Engineering & Computer Science

Room: LA2-100

Friday, February 27, 2026

Engineering and Computer Science

9:15AM-9:35AM

Nathan Alonso, *Biological Chemistry*

Faculty Sponsor: Roger Lo

Title: Colorimetric Bisphenol A Paper-based Microfluidic Device

9:35AM-9:55AM

Eric Harper, *Biochemistry*

Co-Presenter: Jorge Orellana

Faculty Sponsor: Derek Hu

Title: Identifying Early Biomarkers of Treatment Efficacy in Lennox-Gastaut Syndrome based on Computational Characteristics of Interictal EEG

9:55AM-10:15AM

Phat Du, *Electrical Engineering*

Faculty Sponsor: Anna Lee

Title: Thermo-decoupled Photon-stimulated Enhancement In Prussian Blue Electrodes For Aqueous Sodium-ion Batteries

10:15AM-10:55AM

Break + Evacuation Drill

10:55AM-11:15AM

Daniel Ghobriel, *Computer Engineering*

Faculty Sponsor: Eric Hernandez

Title: Analyzing Thermal Effects on FPGA Performance and Computational Reliability

11:15AM-11:35AM

Ryan Huynh, *Electrical Engineering*

Faculty Sponsor: Ava Hedayatipour

Title: Sensing Safety: Developing a Flexible, Portable Alcohol Detection Patch for Community Wellness

11:35AM-11:55AM

Axel Lopez, *Mechanical Engineering*

Co-Presenter: Joseph Baldry

Faculty Sponsor: Mortaza Saeidi

Title: Highly Stretchable Thermoelectric Generators for Low-Grade Energy Harvesting

11:55AM-12:15PM

Kai Macro, *Biomedical Engineering*

Faculty Sponsor: Perla Ayala

Title: Differentiation of Mouse Myoblast Cells on Fibrin Hydrogels

Room: LA2-100

Friday, February 27, 2026

Engineering and Computer Science

12:15PM-12:35PM

Louai Mimoune, *Aerospace Engineering*

Co-Presenter: Thomas Bartolotti

Faculty Sponsor: Mortaza Saeidi

Title: Paraffin-Based Hybrid Rocket Fuels Reinforced with Carbon Nanomaterials

12:35PM-12:55PM

Mikaela Miranda, *Computer Engineering*

Faculty Sponsor: Ga-Young Kelly Suh

Title: Vision-Guided Reinforcement Learning for Cochlear Spiral Navigation During Electrode Insertion

12:55PM-1:15PM

Maro Aziz, *Biomedical Engineering*

Co-Presenter: Helen Cardenas-Rios

Faculty Sponsor: Siavash Ahrar

Title: Hydra in Flow- Investigating the Flow Response of Hydra via Microfluidics Systems

1:15PM-1:35PM

Cameron Toland, *Biomedical Engineering*

Co-Presenter: Steven Harris II

Faculty Sponsor: Maricela Maldonado

Title: Engineering a 3D composite scaffold to culture pancreatic β -cell aggregates

1:35PM-1:55PM

Tony Hanna, *Biomedical Engineering*

Faculty Sponsor: Ga-Young Kelly Suh

Title: Aortic Remodeling due to TEVAR with PETTICOAT Technique to Treat Type B Aortic Dissection

Room: LA2-104

Friday, February 27, 2026

Behavior and Social Sciences

9:15AM-9:35AM

Miranda Arnold, *Psychology*

Faculty Sponsor: Samar Needham

Title: Cognitive Functioning Partially Mediates the Relationship between Special Education Status and Elevated Anxiety Post-TBI

9:35AM-9:55AM

Adam Bird, *Political Science*

Faculty Sponsor: Charles Mahoney

Title: Terrorism, Transposition, and the Constitutive Outside

9:55AM-10:15AM

Maya Escalante, *Sociology*

Faculty Sponsor: Martha Franco

Title: The Lived Experiences of Second Generation U.S. Born Latinos

10:15AM-10:55AM

Break + Evacuation Drill

10:55AM-11:15AM

Kathleen Munoz, *Social Work*

Faculty Sponsor: Jonathan Ramirez

Title: Mandated Reporting and Adverse Childhood Experiences: A Critical Race Theory Policy Analysis

11:15AM-11:35AM

Aeron Frye-Jones, *Psychology*

Faculty Sponsor: Guido Urizar

Title: Adverse Childhood Experiences and Romantic Relationship Quality on Perinatal Depression

11:35AM-11:55AM

Mika Muyango, *Africana Studies*

Faculty Sponsor: Keith Claybrook

Title: How Cultural Heritage Understands and Defines Blackness

11:55AM-12:15PM

Alexandra Gryciuk, *Linguistics*

Faculty Sponsor: Sergio Sandoval Sanchez

Title: Can stylistic speech pattern analysis detect differences in political parties?

Room: LA2-104

Friday, February 27, 2026

Behavior and Social Sciences

12:15PM-12:35PM

Daysia James, *Africana Studies*

Faculty Sponsor: Keith Claybrook

Title: History loss, Identity Lost: The Impact on Identity Development Among African American Adolescence

12:35PM-12:55PM

Sophia Saldana, *Psychology*

Faculty Sponsor: Guido Urizar

Title: Stress and Financial Strain on Maternal Antenatal Attachment

12:55PM-1:15PM

Mariana Ramirez Lemus, *Psychology*

Faculty Sponsor: Araceli Gonzalez

Title: Suicidality Prediction Model Among College Students

1:15PM-1:35PM

Leeaneli Juarez, *Psychology*

Faculty Sponsor: Guido Urizar

Title: Relationship Quality and Parent Gender on Resilience in Early Pregnancy

Room: LA2-106

Friday, February 27, 2026

Behavior and Social Sciences

9:15AM-9:35AM

Fionn Entus, *Linguistics*

Faculty Sponsor: Rebekha Abbuhl

Title: “Autistic Accent” by Ear: Listener Perception of Autistic Accent

9:35AM-9:55AM

Sage Greenstein, *Criminology and Criminal Justice*

Co-Presenter: Kai Cleveland

Faculty Sponsor: Sarah Taylor

Title: Addressing the Gap: Desired Online Relationship and Sexual Education Content of Emerging Adults

9:55AM-10:15AM

Anna Fejes, *Psychological Research*

Faculty Sponsor: Araceli Gonzalez

Title: Identifying Early Predictors of Key Therapeutic Processes in a Transdiagnostic Brief Behavioral Therapy (BBT) for Youth Anxiety and Depression

10:15AM-10:55AM

Break + Evacuation Drill

10:55AM-11:15AM

Gianna Giacomotto, *Psychological Research*

Faculty Sponsor: Guido Urizar

Title: Positive Childhood Experiences as a Buffer for Postpartum Depression

11:15AM-11:35AM

Ainsley Nommensen, *Sport, Exercise, and Performance Psychology*

Faculty Sponsor: Jana Fogaca

Title: Internalization of Gender Roles and its Relationship with Body Surveillance and Sense of Belonging Among Female Surfers

11:35AM-11:55AM

Odeta Rivera, *Political Science*

Faculty Sponsor: Rich Haesly

Title: Grassroots Digital Diplomacy as a Form of Narrative Building and Cross-Cultural Communication

11:55AM-12:15PM

Break

Room: LA2-106

Friday, February 27, 2026

Behavior and Social Sciences

12:15PM-12:35PM

Jillian Arriola, *Sport, Exercise, and Performance Psychology*

Faculty Sponsor: Leilani Madrigal

Title: Behind the Brace: Exploring Re-Injury Anxiety, Athletic Identity, and Return to Sport in Female Collegiate Athletes Following ACL Reconstruction

12:35PM-12:55PM

Emily Linstead, *Anthropology*

Faculty Sponsor: Jeanelle Uy

Title: Examining the Use of Biological Anthropology and the Prevalence of Pelvic Typologies in Obstetrics Education

12:55PM-1:15PM

Mario Salazar, *Geography*

Faculty Sponsor: Gary Hytrek

Title: Reimagining Housing Development Planning in Altadena, CA, after the Eaton Fire (January 7, 2025 – January 31, 2025)

1:15PM-1:35PM

Emily Siu, *Psychological Research*

Faculty Sponsor: Arturo Zavala

Title: One-Trial Fentanyl Locomotor Sensitization in Adolescent and Adult Rats

Health, Nutrition, and Clinical Sciences

9:15AM-9:35AM

Maria Alvarez Arriaga, *Social Work*

Co-Presenter: Kristen Gmerek

Faculty Sponsor: Rashida Crutchfield

Title: Rio Hondo College HOPE Scholars Evaluation

9:35AM-9:55AM

Olivia Amalfitano, *Community Health Education*

Faculty Sponsor: Judy Jou

Title: From Needs to Action: Supporting CSULB Undergraduates

9:55AM-10:15AM

Arianna Burneo, *Biochemistry*

Faculty Sponsor: Yuan Yu Lee

Title: Bisphenol A-Induced Genotoxicity in Mice Pancreas:
Evidence from Waterborne Exposure

10:15AM-10:55AM

Break + Evacuation Drill

10:55AM-11:15AM

Jacklynn Lee, *Psychology*

Faculty Sponsor: Guido Urizar

Title: Effects of Advanced Maternal Age and Cortisol on Adverse
Birth Outcomes

11:15AM-11:35AM

Tanjima Rahman, *Applied Statistics*

Faculty Sponsor: Olga Korosteleva

Title: Evaluating Regression and Machine Learning Models for
Predicting Progression from Normal Cognition to Mild Cognitive
Impairment

11:35AM-11:55AM

Hannan Salam, *Psychological Research*

Faculty Sponsor: Guido Urizar

Title: The Impact of Racial Discrimination and Stress on Adverse
Birth Outcomes

11:55AM-12:15PM

Chloe Qian Yu Yeap, *Molecular and Cellular Biology*

Faculty Sponsor: Arturo Zavala

Title: The Effects of Liraglutide, A GLP-1 Receptor Agonist,
Pretreatment on Methamphetamine Preference in Adolescent Males
and Female Rats

Physical and Mathematical Sciences

9:15AM-9:35AM

Narith Chan, *Physics*

Faculty Sponsor: Claudia Ojeda-Aristizabal

Title: The electronic transport measurement of Graphene and hexagonal Boron Nitride heterostructure

9:35AM-9:55AM

Brenda Garcia, *Biochemistry*

Faculty Sponsor: Paul Buonora

Title: Stereo-controlled Reduction of Ketones Using Biological Systems as Catalysts

9:55AM-10:15AM

Areen Jain, *Applied Statistics*

Faculty Sponsor: Olga Korosteleva

Title: Stochastic Lotka-Volterra Dynamics in Macroeconomics: A Bounded Goodwin Wage-Employment Cycle

10:15AM-10:55AM

Break + Evacuation Drill

10:55AM-11:15AM

Dorsa Kamyab, *Molecular cell biology and physiology*

Faculty Sponsor: Fangyang Tian

Title: Directed Control of PCN-222(Fe) Crystal Morphology Through Systematic Synthesis Modulation

11:15AM-11:35AM

Sabrina Kramer, *Mathematics*

Faculty Sponsor: Jeffrey Pair

Title: Multilingual Proof-Writing Groups

11:35AM-11:55AM

Chi Vo, *Computer Science*

Faculty Sponsor: Laurie Huning

Title: Unraveling Drought Propagation Uncertainty Across Forested Biomes

11:55AM-12:15PM

Om Lala, *Applied Statistics*

Faculty Sponsor: Olga Korosteleva

Title: Bayesian vs Frequentist Analysis of Parkinson's Disease Diagnosis

Interdisciplinary

12:15PM-12:35PM

Break

12:35PM-12:55PM

Sarvenaz Dirakvand, *Information Systems*

Faculty Sponsor: Mostafa Amini

Title: Design and Evaluation of an AI-Assisted Clinical Documentation System for Physical Therapy Using Large Language Models

12:55PM-1:15PM

Edgar Villasano, *Earth Science*

Faculty Sponsor: Benjamin Hagedorn

Title: HydroOHS – An Optimized Hydrograph Separation Algorithm For Baseflow- And Quickflow Estimation From High Resolution Streamflow And Specific Conductance Data

1:15PM-1:35PM

Coryn Bray, *Environmental Science and Policy*

Faculty Sponsor: Heather Barker

Title: Gray to Green: Biophilic Designs for the Present

1:35PM-1:55PM

Taiyo Hayashi, *Mathematics*

Faculty Sponsor: Hui Sun

Title: Phasefield Modeling of Bacterial Colony Formation with Multigrid Method and GPU Acceleration

Physical and Mathematical Sciences

9:15AM-9:35AM

Lauren McWilliams, *Biochemistry*

Faculty Sponsor: Deepali Bhandari

Title: Employing a Click-Chemistry-Based Approach to Investigate Protein Targets of Aspirin in Colonic Organoids

9:35AM-9:55AM

Jessica Chon, *Applied Statistics*

Faculty Sponsor: Hojin Moon

Title: Early Detection of Ovarian Cancer using miRNA Biomarkers via Machine Learning Methods

9:55AM-10:15AM

Truc Hoang, *Applied Statistics*

Faculty Sponsor: Seungjoon Lee

Title: Rare Defect Detection in High-Dimensional Manufacturing Data: A Comparative Study of Feature Reduction and Oversampling Methods Using SECOM

10:15AM-10:55AM

Break + Evacuation Drill

10:55AM-11:15AM

Nicholas Januario, *Geology*

Faculty Sponsor: Benjamin Hagedorn

Title: A Framework Tool for Identifying Gauge Sites with Multiple Hydrologic Variables in Undisturbed Watersheds

11:15AM-11:35AM

Tanner Massimino, *Physics*

Faculty Sponsor: Thomas Klaehn

Title: Probing Extreme Matter: The Interacting Hadron Resonance Gas Model

11:35AM-11:55AM

David Morales-Zapien, *Physics*

Faculty Sponsor: Prashanth Jaikumar

Title: G-Objects as Primordial Black Hole-Neutron Star Remnants: Population Modeling and Multi-Wavelength Observables

11:55AM-12:15PM

Matthew Murnane, *Applied Statistics*

Faculty Sponsor: Laurie Huning

Title: A Novel Probabilistic Approach to Estimating Rain-on-Snow Events Triggering Snowpack Loss

Physical and Mathematical Sciences

12:15PM-12:35PM

Joy Seo, *Biochemistry*

Faculty Sponsor: Katarzyna Slowinska

Title: Introducing Cysteine-Containing Tripeptides into Synthetic Collagen-Like Polymers for Disulfide-Bond Driven Crosslinking

12:35PM-12:55PM

Elliott Sutter, *Pure Mathematics*

Faculty Sponsor: Joshua Sack

Title: Quaternionic Quantum Theory

12:55PM-1:15PM

Rio Bungalon, *Pure Mathematics*

Faculty Sponsor: Ryan Blair

Title: Wirtinger Number on Knots and Zero Forcing Number on Diagraphs

1:15PM-1:35PM

Nicolas De Brouwer, *Electrical Engineering*

Faculty Sponsor: David Lee

Title: Orbital Mirror Terraforming of Extreme Latitudes

Education

9:15AM-9:35AM

Julio Aguirre Ortiz, *Consumer Affairs*

Faculty Sponsor: Kimberly Kelly

Title: Scaffolding Parent-Child Science Talk

9:35AM-9:55AM

Bethanie Ceja, *Mathematics for Educators*

Faculty Sponsor: Pavneet Kaur Bharaj

Title: Visual and Symbolic Representations in Fraction Instruction: Insights from Mathematics Teacher Education Lecturers

9:55AM-10:15AM

Jenna Ersheid, *Liberal Studies*

Faculty Sponsor: Pavneet Kaur Bharaj

Title: Questioning Practices of Elementary Preservice Teachers in Virtual Teaching Simulations

10:15AM-10:55AM

Break + Evacuation Drill

10:55AM-11:15AM

Michael Pile, *Educational Leadership Development*

Co-Presenter: Rachelle McClendon-Alexander

Faculty Sponsor: Devery Rodgers

Title: Coalition-Building Through Affinity: A Case Study of Black Graduate Student Success

11:15AM-11:35AM

Loren Thompson, *Psychology*

Faculty Sponsor: Joan Fisher

Title: Learning Models and Diverse Student Needs

11:35AM-11:55AM

Break

Business, Economics, and Public Administration

11:55AM-12:15PM

Keanu Hua, *Applied Statistics*

Faculty Sponsor: Olga Korosteleva

Title: The Community College Bachelor's Degree in Nursing: Local Effect on Degrees Awarded

12:15PM-12:35PM

Shakhzoda Khodjakhonova, *Finance*

Co-Presenter: Ngan Nguyen

Faculty Sponsor: Laura Gonzalez

Title: Understanding Lender Behavior in AI-Enriched Pro-Social Peer-to-Peer Lending Platforms with Community Language

12:35PM-12:55PM

Giovanni Sciacqua, *Italian*

Co-Presenter: Yashaira Gonzalez-Ledesma

Faculty Sponsor: Claudia Barrulas Yefremian

Title: Research Case

Humanities and Letters

9:15AM-9:35AM

Jordan Gallardo, *History*
Faculty Sponsor: Jane Dabel
Title: Chavez Ravine: DisPLacement

9:35AM-9:55AM

Emma Gonzales, *Philosophy*
Faculty Sponsor: Kavitha Koshy
Title: Gender Games: Making Sense of Trans Sport Through Walton's Philosophy of Fiction

9:55AM-10:15AM

Yesenia Gonzalez, *Classical Studies*
Faculty Sponsor: Debby Sneed
Title: The Reality and Rhetoric of Roman Cosmetics

10:15AM-10:55AM

Break + Evacuation Drill

10:55AM-11:15AM

Nicole Gregg, *Anthropology and Human Development*
Faculty Sponsor: Stacy Macias
Title: Latina Lesbian Lineages

11:15AM-11:35AM

Charlotte Hamilton, *History*
Faculty Sponsor: Jane Dabel
Title: "Cowhides, Fire, and Death": The 1881 Atlanta Washerwoman Strike in the Atlanta Constitution

11:35AM-11:55AM

Naomi Liller, *History*
Faculty Sponsor: Andrew Fogleman
Title: Peeling Back The Colonial Legacy of The United Fruit Company in Latin America and The Caribbean

11:55AM-12:15PM

Sophia Martinez, *Political Science*
Co-Presenter: Isaac Obert
Faculty Sponsor: Debito Beamer
Title: The Politics of Conspiracy Theories

Humanities and Letters

12:15PM-12:35PM

Thai Butterfield, *Religious Studies*

Faculty Sponsor: John Becker

Title: Tonantzin–Guadalupe: A "Nepantla" of Colonial Hegemony and Indigenous Epistemology in Luis Laso de la Vega's "Nican mopohua," 1649

12:35PM-12:55PM

Mei Ikeda, *History*

Faculty Sponsor: Andrew Fogleman

Title: Nagano Female Silk Workers: Embodying Inakanoko (Child of Countryside Periphery) in Rural Industrialization in Japan

Biological and Agricultural Sciences

9:15AM-9:35AM

Rami Al Harastani, *Biology*

Faculty Sponsor: Bryan Rourke

Title: Environmental variation in myosin isoform expression in coyotes

9:35AM-9:55AM

Jo Ann Derrick, *Molecular Cell Biology*

Faculty Sponsor: YuanYu Lee

Title: Deciphering domain-specific interactions of endocrine disruptor bisphenol A with the human androgen receptor

9:55AM-10:15AM

Alan Chau, *Molecular Biology & Physiology*

Faculty Sponsor: Jennifer Johnston

Title: Production of CRISPR/Cas9 Tools for the Deletion of C1q in Thp-1 cells

10:15AM-10:55AM

Break + Evacuation Drill

10:55AM-11:15AM

Luci Herrera-Lopez, *Cellular, Molecular, Physiological Biology*

Faculty Sponsor: Benjamin Perlman

Title: What's the point?: barb morphology of the Round Stingray (*Urobatis halleri*)

11:15AM-11:35AM

Aatika Anis, *Biochemistry*

Faculty Sponsor: Vasanthi Narayanaswami

Title: Isoform-Specific Effects of Apolipoprotein E on Cholesterol Regulation and Tight Junction Integrity in the Blood–Brain Barrier

11:35AM-11:55AM

Whitney Jones, *Biology*

Faculty Sponsor: Christopher Lowe

Title: Sound Characterization of Swimmers, Surfers, and Kayakers and a Preliminary Look on Juvenile White Shark (*Carcharodon carcharias*) Response within an Aggregation Site

11:55AM-12:15PM

Keira Spiller, *Marine Biology*

Faculty Sponsor: Benjamin Perlman

Title: Holy Sheep! Assessing the Effects of Marine Protected Areas on California Sheephead and Crowned Sea Urchin Population Structures on Santa Catalina Island, CA

Biological and Agricultural Sciences

12:15PM-12:35PM

Guinness Ng, *Biology, Cell Molecular Biology and Physiology*

Faculty Sponsor: Houng-Wei Tsai

Title: How Sex, Aging, and Androgen Receptors Shape Social Behavior in Mice

12:35PM-12:55PM

Amber Peek, *Biochemistry*

Faculty Sponsor: Deepali Bhandari

Title: Salicylate Treatment Activates IRE1 Signaling in Colorectal Cancer

12:55PM-1:15PM

Alexandra Fernandes, *Biology*

Faculty Sponsor: Jiae Lee

Title: Identifying proteomic biomarkers candidates enriched in STING-dependent extracellular vesicles from malignant tumors in *Drosophila melanogaster*

Humanities and Letters

9:15AM-9:35AM

Zack Medway, *English*

Faculty Sponsor: Erin Caron

Title: Feminism and Fun in Fornes's Avant-Garde "Fefu and Her Friends"

9:35AM-9:55AM

Eileen Parslow, *English*

Faculty Sponsor: Neil Hultgren

Title: "That Sense of Loneliness": Ambition, Isolation, and the Constrictions of Small-Town Life in George Eliot's Middlemarch

9:55AM-10:15AM

Liz Sato, *Philosophy*

Faculty Sponsor: Marie Jayasekera

Title: Thomas Reid's conception of reason and moral sense

10:15AM-10:55AM

Break + Evacuation Drill

10:55AM-11:15AM

Nathan Wagester, *Philosophy*

Faculty Sponsor: Kyle Banick

Title: Independence, Infinity, and the Breakdown of General Propositions in Wittgenstein's Tractatus

11:15AM-11:35AM

Mikayla Winfery, *History*

Faculty Sponsor: Keith Claybrook

Title: Samurai and Sambo: American Cultural Imperialism and the Diffusion of Anti-Blackness into East Asia

11:35AM-11:55AM

Oliver Di Martino, *Philosophy*

Faculty Sponsor: Cory Wright

Title: Was I Ever a Zygote?

11:55AM-12:15PM

Jamie Carmichael, *Philosophy*

Faculty Sponsor: Per Milam

Title: Stop Expressing Blame

Humanities and Letters

12:15PM-12:35PM

Fiona Eustace, *English*

Faculty Sponsor: Neil Hultgren

Title: Beneath the Quakerish Mrs. Casaubon: A Woman of Desire—
Visual Art and Feminine Identity in George Eliot’s Middlemarch

12:35PM-12:55PM

Lancy Lopez, *Philosophy*

Faculty Sponsor: Cory Wright

Title: Intervening on Autonomy Interferences: Paternalistic Bald-
Faced Lies

12:55PM-1:15PM

Samuel King, *Geography*

Faculty Sponsor: Lily House-Peters

Title: “From the American People”: USAID Aid Exit in Zambia and
the Retrenchment of U.S. Soft Power

Engineering and Computer Science

9:15AM-9:35AM

Sebastian Carrillo, *Mechanical Engineering*

Co-Presenter: Jeong Gyu Lee

Faculty Sponsor: Anna Lee

Title: Cavity –Assisted Plasmonic Amplification via TiO₂ Spacer-Controlled Resonance Coupling

9:35AM-9:55AM

Zahra Darestani, *Chemical Engineering*

Co-Presenter: Khin Nyein Chan

Faculty Sponsor: Sergio Mendez

Title: Optimization of Anaerobic Digestion of Food Waste with Aspen Plus® Simulations

9:55AM-10:15AM

Rishit Goel, *Information Systems*

Co-Presenter: Neha Rajesh Vedak

Faculty Sponsor: Deepti Singh

Title: NeuroPhish: Measuring LLM Susceptibility to Psychological Manipulation in Cybersecurity Decision Support

10:15AM-10:55AM

Break + Evacuation Drill

10:55AM-11:15AM

Lizbeth Herrera-Cuen, *Mechanical Engineering*

Co-Presenter: Isis Solis

Faculty Sponsor: Mortaza Saeidi

Title: Graphene-based Antifouling Coatings for Naval Applications

11:15AM-11:35AM

Niyati Nikunj Kapadia, *Computer Science*

Co-Presenter: Sarah Pradhan

Faculty Sponsor: JuCheol Moon

Title: Evaluating Value Drift in Large Language Models Under Repeated Ethical Decision-Making Prompts

11:35AM-11:55AM

Steve Maldonado Melendez, *Mechanical Engineering*

Faculty Sponsor: Tarian Liu

Title: Towards Generalized Immunity Against System Perturbations

Engineering and Computer Science

11:55AM-12:15PM

Saad Abdullah Malik, *Aerospace Engineering*

Faculty Sponsor: Mortaza Saeidi

Title: Multifunctional Cementitious Nanocomposites for Self-Sensing Applications

12:15PM-12:35PM

Aaron Gunawardena, *Biomedical Engineering*

Co-Presenter: Ulises Velasco

Faculty Sponsor: Derek Hu

Title: Identifying Early Biomarkers of Treatment Response in Lennox-Gastaut Syndrome Using EEG Functional Connectivity

Creative Arts and Design

9:15AM-9:35AM

Caleb Cohen, *Human Factors*
Co-Presenter: Polo Zahir-Rodriguez
Faculty Sponsor: Sam Anvari
Title: Designing Multimodal Takeover Requests for
Semiautonomous Driving

9:35AM-9:55AM

Elise James, *Instrumental Music Education*
Faculty Sponsor: Jennifer Olson
Title: A Contemporary Lens on Compositions for the Modern Flute
Player: The Benefits of Extended Techniques

9:55AM-10:15AM

Samuel Mercado, *Human Factors Engineering*
Co-Presenter: Shelby Trainor
Faculty Sponsor: Sam Anvari
Title: Effects of Weather and Interface Contrast and Simulated
Driving

10:15AM-10:55AM

Break + Evacuation Drill

10:55AM-11:15AM

Alexander Homami, *Music Composition*
Faculty Sponsor: Adriana Verdie de Vas-Romero
Title: A Cultural and Compositional Exploration of Iranian
Traditional Music

11:15AM-11:35AM

Arturo Solorio, *Cinematic Arts*
Faculty Sponsor: Susan Bloom
Title: TAPS

11:35AM-11:55AM

Break

Engineering and Computer Science

11:55AM-12:15PM

Shibi Rahul Senthilkumar, *Computer Science*

Faculty Sponsor: Basit Ur Rahim

Title: Multi-Agent AI system for Code Vulnerability Detection and Auto-Remediation in Python

12:15PM-12:35PM

Abhay Kaushik Nudurupati, *Aerospace Engineering*

Faculty Sponsor: Surajit Roy

Title: Ultrasonic Wave Propagation Enhancement in Polymer Composites Through Hybrid Carbon Nanotube–Copper Oxide Nanoengineering

12:35PM-12:55PM

Aaditya Ojha, *Civil Engineering*

Faculty Sponsor: Shadi Saadeh

Title: Enhancing Durability and Interfacial Bonding in Rubberized Asphalt Composites Using Waste-Based Additives

12:55PM-1:15PM

Anuja Sawant, *Computer Science*

Faculty Sponsor: Abdul Basit

Title: Using Automated Test Generation for Lightweight Architectural Validation

1:15PM-1:35PM

Fahim Maksud Shaikh, *Chemical Engineering*

Faculty Sponsor: Sergio Mendez

Title: Development of a Supercritical Water Treatment Method to Address the Problems with Disposing of Sewage Sludge at the Orange County Sanitation District



Special Thanks

Committee

Chelsea Acevedo, Elyzza Aparicio, Noah Barrera, Jo Ann Derrick, Sage Greenstein, Daniela Martinez, Victoria Min, Jackie Morales, Ammisha Opoku-Boamah, Dina Perrone, Bryan Skorka, Barbara Taylor, Kristine Torres, Sarah Velasco

Partners

Academic Affairs, Graduate Center, Graduate Studies, Office of the Provost, Office of Research and Economic Development, Office of Undergraduate Research Services, Undergraduate Research Opportunity Program

Moderators & Volunteers

Daisy Aguirre, Miranda Hall, Andy Linden, Abhishek Nirmal, Cecilia Paredes, Aaradhya Partap, Steven Paul, Murphy Phillips, Alejandra Rivas, Hannan Salam, Danish Basha Shaikh, Harshavardhan Surisetty, Shreenithi Tindivanam, Sushmitha Vijayakumar

Jurors

Juror names are not revealed, they are sent a special thanks and signed certificate from Interim Associate Vice President of Research and Sponsored Programs,
Dr. Barbara Taylor



PARKING INFORMATION www.csulb.edu/parking • Phone: (562) 985-4146 • Email: ParkingGeneral@csulb.edu