



American Academy of Pediatrics Climate Change and Health Committee

Project	Grade	Title
183	10	Assessing the Separations of a Biodegradable Surfactant Using TLC and Image Processing
Park, Gurnho		Suh, Daniel
272	11	Plastic that Can Eat Itself? Improving Tensile Strength in Engineered Living Polymers
Chandra, Arthi		
273	9	Nature-Inspired Living Device to Degrade Organic Pollutants in Water
Chen, Steven		
278	11	Dust Suppression Using Biocementation on Exposed Salton Sea Lakebed
Munoz, Esteban		
279	10	Optimal Ratio of Superworms in Polystyrene Biodegradation
Murphy, Siffrin		Perry, Janeiro
284	11	Smart Park Management: A Drone-Based AI Solution for Vegetation Health and Wildfire Risk Mitigation
Zhang, Austin		
285	9	Design of a Low-Cost WiFi-Enabled PM2.5 Sensor Network Using IoT for Real-Time Air Quality Monitoring
Zhu, Virginia		
332	11	An Integrated Analysis of Marine Polyurethane Microplastic Degradation with Genetically Engineered Bacterial Biofilm
He, David		
372	9	From Plants to Ecosystems: Using Nitrogen-15 to Detect Stress
Tipirneni, Siri		
558	7	Are You Drinking Plastic? Which Water Bottle Type Releases More BPA Under Heat: Thick or Thin Plastic?
Mejia, Alitzia		
633	7	The Detection of Microplastics in Drinking Water Using Machine Learning
Combs, Valerie		
649	8	Can Eelgrass Remove Toxic Copper Levels from the San Diego Bay?
Schuh, Chloe		
671	8	The Eco-Buoy: An Ocean-Monitoring Smart Buoy
Paband, Humayra		
693	6	Improving Solar Panel Efficiency
Merten, Niall		



American Institute of Aeronautics and Astronautics - San Diego Section (AIAA-SD)

Project	Grade	Title
296 Siddiqui, Aminah	9	Advancing Cost-Effective Space Exploration Using LESAR (Low Cost Extraterrestrial Surface Analysis Rover)
743 Brum, Charles	8	StarSync: Local Orientation Synchronization Device



American Psychological Association

Project	Grade	Title
218 Shi, Ryan	11	Microglial CMPK2 Inhibition as a Novel Therapeutic Strategy for Major Depressive Disorder



American Society of Civil Engineers

Project	Grade	Title
273 Chen, Steven	9	Nature-Inspired Living Device to Degrade Organic Pollutants in Water
283 Xia, Olina	11	Investigating Carbon Debt and Socio-Environmental Inequality in Transportation Using AI-GIS Modeling
284 Zhang, Austin	11	Smart Park Management: A Drone-Based AI Solution for Vegetation Health and Wildfire Risk Mitigation
371 Saxena, Parth	11	A Novel AI-Driven Rainfall Monitoring System for Sustainable Irrigation in Developing Regions
649 Schuh, Chloe	8	Can Eelgrass Remove Toxic Copper Levels from the San Diego Bay?
671 Paband, Humayra	8	The Eco-Buoy: An Ocean-Monitoring Smart Buoy



American Society of Mechanical Engineers (ASME)

Project	Grade	Title
150 Jian, Jolina	9	Using Piezo Transducers to Break Uric Acid Crystals in Gout
292 Hong, David	11	Design and Construction of an Innovative Semi-Rigid Lower Limb Exoskeleton
294 Parthasarathy, Jeyanth Na	9	Advanced Terrain-Adaptive Suspension Framework: Leveraging Machine Learning for Optimized Vehicle Dynamics a
661 Akkarakaran, Eric	8	Sensor-Based Irrigation System
669 Lee, Nathan	8	The Braille Box: Revolutionize Teaching to the Vision-impaired Yang, Matthew
693 Merten, Niall	6	Improving Solar Panel Efficiency



Armed Forces Communications & Electronics Association (AFCEA)

Project	Grade	Title
243 Chandra, Neil	10	D-SAFENet - DNS Security and Filtering Engine for Malicious DNS Detection and Classification
258 Shin, Andrew	11	Harmonizing Human Attention and Deep Neural Networks: Gaze-Weighted Attention for Object Recognition
264 Badal, Rohan	12	Hallucination, Conflation and Ultracrepidarianism in Large Language Models
296 Siddiqui, Aminah	9	Advancing Cost-Effective Space Exploration Using LESAR (Low Cost Extraterrestrial Surface Analysis Rover)
343 Chen, Trevor	12	Perfecting Infrared Gratings for Polarized and Non-Polarized Applications
611 Bantval, Maya	8	Voice-Based Object Detection Device for the Visually Impaired
612 Bhatia, Rishabh	7	Applying Image Recognition Algorithms for Identification of Strongylocentrotus Purpuratus
661 Akkarakaran, Eric	8	Sensor-Based Irrigation System
664 Cottrell, Oliver	7	Personalized Homework Tutor Robot
668 Gorman, Andrew	6	We Didn't Start the Fire
693 Merten, Niall	6	Improving Solar Panel Efficiency
711 Green, Joie	7	May the Best Strategy Win: The Optimal Approach to Battleship
746 Giunta-Beeche, Juliette	7	Does the Strength of a Magnet Change with Temperature?
756 Stroud-Healey, Franklin	6	Measuring Magnetic Susceptibility of Liquids for Contaminates



Association for Women Geoscientists

Project	Grade	Title
296 Siddiqui, Aminah	9	Advancing Cost-Effective Space Exploration Using LESAR (Low Cost Extraterrestrial Surface Analysis Rover)



Association for Women in Science

Project	Grade	Title
112	10	Memory Reconstruction Ajanovic, Aya
144	11	Uncovering Molecular Mechanisms for Treatment of Congenital Heart Defects through High-Content Genetic Perturb: Dogra, Saanvi
171	12	Synaptogenesis of Transplanted Inhibitory Neurons in the Adult Primary Visual Cortex Le, Maithy Nguyen, William
182	11	Morphological Changes and Kinetic Insights of Copper(I) Oxide Nanocrystals Huang, Lucy
223	11	Advancing Epilepsy Detection through MicroRNA Biomarkers: A Machine Learning Solution Tipirneni, Aanika
280	11	Effects of Copper, Chromium, and Iron on Imperial Beach vs. La Jolla Perez, Lisa
363	10	Triticum aestivum Seed Response to Electromagnetic and Magnetic Stimuli: A Comparative Investigation Baruch, Hila
501	6	Do Young or Adult Guinea Pigs Learn Faster? Hollmann, Thrace
544	8	Personalized Drug Design: Targeting H1 Receptor Mutations to Improve Allergy Treatment Pyla, Tanvi
551	8	The Effects of Radiofrequency Radiation on the Development of Cancer Broudy, Golda
631	8	Can Pond Water Purify Wastewater? Bi, Mia
734	8	How Does UV Exposure Affect the Growth of Yeast Colonies? Way, Eleanor
751	7	The Effects of Tap Boards on Tap Shoes Lovette-Colyer, Ella
767	6	What Type of Water Helps the Plant Grow? Joby, Maria



Broadcom Coding with Commitment

Project	Grade	Title
616 Kathiravan, Yaalini	8	Ride Safe, Ride Smart: Ensuring E-bike Safety with AI-Based Helmet Monitoring Peiris, Dylan



Building Industry Association Cares

Project	Grade	Title
247 Dagar, Arnav	11	Mapping and Estimating Homelessness
293 Mansour, Malik	10	Autonomous Leak Detection and Condition Monitoring Robot
312 Delgado, Maya	11	The Thermal Resistance of Environmentally Sustainable Insulation Materials vs. Unsustainable Polystyrene Insulation
635 Hendrix, Elise	7	Quantifying the Effects of Interstate Emissions on Local Air Quality
688 Hardy, Ellie	7	Cool or Warm? Hot or Cold? How Does Layering Shingles Affect House Temperature?



California School Nurse Organization San Diego - Imperial

Project	Grade	Title
142 Abhyankar, Sara	11	Migraine Bot
201 Goel, Khushee	11	An EEG-Based Approach for Measuring IAD Risk Due to Social Media Overuse



CaSEF Qualified

Project	Grade	Title
103 Tachibana, Emi	11	Nicotine-Induced Neurotoxicity in Planarian Models: Neuronal Regeneration and Behavior
104 Wyatt, Ronald	11	Polystyrene-Based Superworm Frass and Its Theoretical Impact on Plant Nutrition
112 Ajanovic, Aya	10	Memory Reconstruction
113 Bhalla, Nupur	11	The Relationship Between Emotional Intelligence and Academic Burnout in Adolescents Im, Hannah
120 Lee, Kate	11	Interaction Between ApoE-genotype & Lifestyle Factors with Cognition in a Latino Cohort
122 Vadi, Ashwin	9	Knowledge, Attitude, Behavior and Practice Towards Microplastic Hazards among Community Dwelling Individuals in
132 Chalamalasetty, Abhiram	11	GIN Based Predictions of Potential Inhibitors Targeting Mycobacterium-Tuberculosis InhA Essential for XDR-Strains Li, Anze
144 Dogra, Saanvi	11	Uncovering Molecular Mechanisms for Treatment of Congenital Heart Defects through High-Content Genetic Perturb:
151 Kalyanaraman, Anirudh	12	Adverse Cardiovascular Effects of Burn Pit Exposure: The Role of Oxidative Stress
157 Lim, Ricky	11	Development and Evaluation of Nanoantibody-based Disease Diagnostics
158 Zeng, Lilian	11	Identifying Bacteriophages, Nature's Own Secret Weapon Against Antibiotic Resistant Bacteria, for Achromobacter
174 Yao, Minghui	11	Illuminating Driving Mechanism of Beneficial Host-Microbe Model: Opsin in Squid-Vibrio Symbiosis
181 Capaldi, Charlotte	9	Comparing Cleavage Rates of Modified Nucleosides from a Universal Solid Support
182 Huang, Lucy	11	Morphological Changes and Kinetic Insights of Copper(I) Oxide Nanocrystals
183 Park, Gurnho	10	Assessing the Separations of a Biodegradable Surfactant Using TLC and Image Processing Suh, Daniel
191 Aravind, Medha	10	NeuroRepurpose: An In Silico Approach to Repurposing Drugs for Multiple Sclerosis Treatment
194 Bapat, Mihir	10	Multimodal Deep Learning Approach for Brain Tumor Segmentation and Prognostic Prediction
198 Chen, Hayden	11	EnsemBioDesc: Establishment and Optimization of Molecular Descriptor AI Ensembles for Novel MAPKAPK2 Inhibits
199 Ganji, Vibha Yadav	11	Novel Screening Mechanism for Aggregation Breakers of Alzheimer's Disease A β Protofibrils
200 Gao, William	11	Code2Cure: A Novel Pipeline for Multiobjective Cardiovascular Drug Design Using Generative AI, Graph Neural Netw
203 Hou, Henry	10	Segment-Any-Cell: Supercharging Generalized Cell Segmentation with Diffusion Synthesized Data



CaSEF Qualified

Project	Grade	Title
209	12	A Novel Approach to Modeling the Effect of Protein Crowding on Cellular Membrane Shape Madhukara, Nandana
213	11	Small Changes, Big Impact- miRNAs in Lung Cancer Detection Oguz, Tarik
217	11	Accelerating Drug Discovery with a Fragment-Based Machine Learning Shah, Nisarg
218	11	Microglial CMPK2 Inhibition as a Novel Therapeutic Strategy for Major Depressive Disorder Shi, Ryan
248	11	Fighting Poaching through High Precision Real-Time Gunshot Detection Using Deep Learning and Cross-Unit Comm Dhar, Naveen
251	12	Building LLM Reasoning Models for Cheap: Salient Reasoning Traces for Cost-Efficient Test-Time Scaling Fan, Leanne
255	10	Spiking Neurons on a Chip - A Biologically-Inspired Neuromorphic-FPGA Architecture for Energy-Efficient AI Applicati Liang, Jaelyn
257	11	Novel Material Discovery through Geometric Deep Learning and VAE Latent Space Diffusion Rezaei, Ryan
261	11	An Immersion Campus Simulation Protection and Safety Improvement System Using Artificial Intelligence Xing, Ella
262	10	Wearable Stethoscope Array and Localization & Diagnosis of Cardiopulmonary Sounds Xu, Kayley
272	11	Plastic that Can Eat Itself? Improving Tensile Strength in Engineered Living Polymers Chandra, Arthi
273	9	Nature-Inspired Living Device to Degrade Organic Pollutants in Water Chen, Steven
278	11	Dust Suppression Using Biocementation on Exposed Salton Sea Lakebed Munoz, Esteban
284	11	Smart Park Management: A Drone-Based AI Solution for Vegetation Health and Wildfire Risk Mitigation Zhang, Austin
285	9	Design of a Low-Cost WiFi-Enabled PM2.5 Sensor Network Using IoT for Real-Time Air Quality Monitoring Zhu, Virginia
292	11	Design and Construction of an Innovative Semi-Rigid Lower Limb Exoskeleton Hong, David
296	9	Advancing Cost-Effective Space Exploration Using LESAR (Low Cost Extraterrestrial Surface Analysis Rover) Siddiqui, Aminah
311	11	Immobilization of Cyanobacteria within Hydrogels Aiding in Purified Protein Drug Delivery Chandra, Anju
314	11	Novel Scalable Multiphase Autonomous Vehicle Systems for Emerging Markets Ray Chaudhuri, Shounak
321	11	Reinforcement Learning Based Simulated Annealing Qiu, Nathan
323	11	Efficient Algorithm and Implementation for Boole Reduction of Large Logic Expressions Xuan, Kailin



CaSEF Qualified

Project	Grade	Title
331 Foss, Spencer	12	Sucralose Exposed Bacteria's Relationship to Future Increases in Antibiotic Resistance Genes
332 He, David	11	An Integrated Analysis of Marine Polyurethane Microplastic Degradation with Genetically Engineered Bacterial Biofilm
343 Chen, Trevor	12	Perfecting Infrared Gratings for Polarized and Non-Polarized Applications
344 Choubey, Shubhay	11	MicroNet: A Novel Deep Learning Framework For Exoplanet Classification In Microlensing Events
347 Smith, Joe	12	Lost in the Stars: Chemical Tagging of Magellanic Clouds and Accreted Populations
367 Luo, Anna	11	Allelopathic Effects of Cynara cardunculus on Native Coastal Sage Scrub Species
372 Tipirneni, Siri	9	From Plants to Ecosystems: Using Nitrogen-15 to Detect Stress
374 Zhang, Elvin	11	Automated Plant Disease Detection through Multi-sensory Analysis for Space Travel Application
501 Hollmann, Thrace	6	Do Young or Adult Guinea Pigs Learn Faster?
513 Cooper, Aaron	8	Does Neurodivergence Affect the Way People See Ambiguous Illusions?
519 Karthik, Arjun	7	The Impact of Social Media on Teen Mental Health
524 Salem, Yusra	7	Exploring the Impact of Immersive Vs. Traditional Learning on Student Performance
525 Sternson, Olympia	7	Generational Effects on Resilience from Gen Z to the Greatest Generation
543 Jasim, Reema	8	Will Juice Lose Its Vitamin C And How Can It Be Preserved?
554 Ehsan, Anabia	8	Reducing Pain and Anxiety During Medical Procedures in Children with Needle Phobia
560 Saha, Karishma	8	Structural Brain Volume Differences Across Cognitive Aging Stages: Evidence from MRI
561 Valkanov, Martin	7	Eco-Safe Marine Sunscreen: Development and Effectiveness Testing Against Conventional Products
562 Zhang, Amy	8	The Healthy Consumption of Popular Drinks for Teenagers
581 Amin, Ilyas	8	Eco-Friendly Corrosion Inhibitors: The Effectiveness of Plant Extracts in Rust Prevention
592 Oster, Oliver	8	The Effectiveness of Various Desiccants on Moisture Absorption
601 Bojja, Ishan	6	Congenital Nystagmus Diagnosis with Artificial Intelligence Eye Tracking Jian, Howell



CaSEF Qualified

Project	Grade	Title
612	7	Applying Image Recognition Algorithms for Identification of Strongylocentrotus Purpuratus
Bhatia, Rishabh		
616	8	Ride Safe, Ride Smart: Ensuring E-bike Safety with AI-Based Helmet Monitoring
Kathiravan, Yaalini		Peiris, Dylan
632	8	Investigating the Effects of Rail Corridor Proximity on Microplastic Beach Pollution
Blais, Embry		Samady, Ariana
634	8	Mapping Invasive Species With A Drone And Machine Learning Algorithm In San Diego
Feng, Andy		Xu, Henry
638	6	Effect of Increased CO2 Levels on CAM Plant Kalanchoe pH and Stomatal Density
Kattamuri, Uma		
639	8	The Effect of Arthrospira Platensis on Plastic Degradation
Kelsey, Skye		
669	8	The Braille Box: Revolutionize Teaching to the Vision-impaired
Lee, Nathan		Yang, Matthew
670	7	DIY Beach Cleaning Robot
Monpays, Eva		Swigart, Julianna
672	6	D3: Diabetic Drink Doctor - A Tri-Sensor Beverage Testing Device for Diabetics
Siddiqui, Aishah		
673	8	The Effects of Sensor Configuration on Autonomous Vehicles
Zoch, Ryan		
674	8	Low-cost Portable Braille Embosser for Education
Hu, Ethan		Xu, Andrew
681	6	Engineering a Ramp for Guinea Pigs
Ahmad, Yasmine		
684	6	The Flexible, Reusable Sound Insulator
Bi, Amanda		
693	6	Improving Solar Panel Efficiency
Merten, Niall		
695	6	Project RF
Rupiper, Nora		Yandell, Katie Yandell, Katie
697	8	Application of Machine Learning to Decrease Aviation Incident Rates
Wadhwani, Aarav		
711	7	May the Best Strategy Win: The Optimal Approach to Battleship
Green, Joie		
724	6	How Well Do Disinfectants Work?
Hammad, Alya		
727	8	What Kinds of Bacteria are Found in the Waters of Imperial Beach?
Hensley, Abigail		
743	8	StarSync: Local Orientation Synchronization Device
Brum, Charles		
744	8	Basketball Bounce and Friction
Factor, Simon		



CaSEF Qualified

Project	Grade	Title
756	6	Measuring Magnetic Susceptibility of Liquids for Contaminates Stroud-Healey, Franklin
766	8	Effects of Salinity on California Coastal Sage Scrub Seed Germination Goel, Leela Ye, Luna
770	8	Sustainable Gardening: Kitchen Scraps to Thriving Tomatoes! Roy, Amelie
782	8	Decomposition of Compostable Bags and Best Brand for Carrying San Diego's Waste Andersen, Zachary
784	8	MoisTRUE - Which Ingredient is Best in Retaining Moisture for Lip Balm? Bharadwaj, Harshini Rajagopalan, Advita
787	8	The Effect of Natural Heat Protectant Versus Synthetic Heat Protectant on Hair Tensile Strength and Cells Dimenstein, Anael



DOD STEM Leadership Prize

Project	Grade	Title
693 Merten, Niall	6	Improving Solar Panel Efficiency



DRS Daylight Solutions

Project	Grade	Title
291 He, Daniel	9	Pinhole Optics Imager
343 Chen, Trevor	12	Perfecting Infrared Gratings for Polarized and Non-Polarized Applications
524 Salem, Yusra	7	Exploring the Impact of Immersive Vs. Traditional Learning on Student Performance
616 Kathiravan, Yaalini	8	Ride Safe, Ride Smart: Ensuring E-bike Safety with AI-Based Helmet Monitoring Peiris, Dylan



Fred H. Rohr Award from Collins Aerostructures

Project	Grade	Title
294	9	Advanced Terrain-Adaptive Suspension Framework: Leveraging Machine Learning for Optimized Vehicle Dynamics a Parthasarathy, Jeyanth Na



General Atomics Sciences Education Foundation

Project	Grade	Title
257 Rezaei, Ryan	11	Novel Material Discovery through Geometric Deep Learning and VAE Latent Space Diffusion
273 Chen, Steven	9	Nature-Inspired Living Device to Degrade Organic Pollutants in Water
343 Chen, Trevor	12	Perfecting Infrared Gratings for Polarized and Non-Polarized Applications
672 Siddiqui, Aishah	6	D3: Diabetic Drink Doctor - A Tri-Sensor Beverage Testing Device for Diabetics
693 Merten, Niall	6	Improving Solar Panel Efficiency



Grand Award - Junior Div. Life Sciences

Project	Grade	Title
560 Saha, Karishma	8	Structural Brain Volume Differences Across Cognitive Aging Stages: Evidence from MRI
638 Kattamuri, Uma	6	Effect of Increased CO2 Levels on CAM Plant Kalanchoe pH and Stomatal Density



Grand Award - Junior Div. Physical Sciences

Project	Grade	Title
669 Lee, Nathan	8	The Braille Box: Revolutionize Teaching to the Vision-impaired Yang, Matthew
674 Hu, Ethan	8	Low-cost Portable Braille Embosser for Education Xu, Andrew



Grand Award - Senior Div. Life Sciences

Project	Grade	Title
144 Dogra, Saanvi	11	Uncovering Molecular Mechanisms for Treatment of Congenital Heart Defects through High-Content Genetic Perturb:
158 Zeng, Lilian	11	Identifying Bacteriophages, Nature's Own Secret Weapon Against Antibiotic Resistant Bacteria, for Achromobacter



Grand Award - Senior Div. Physical Sciences

Project	Grade	Title
257 Rezaei, Ryan	11	Novel Material Discovery through Geometric Deep Learning and VAE Latent Space Diffusion
262 Xu, Kayley	10	Wearable Stethoscope Array and Localization & Diagnosis of Cardiopulmonary Sounds



Grand Award Runner Up #1 - Junior Div. Life Sciences

Project	Grade	Title
639 Kelsey, Skye	8	The Effect of Arthrospira Platensis on Plastic Degradation



Grand Award Runner Up #1 - Junior Div. Physical Sciences

Project	Grade	Title
711 Green, Joie	7	May the Best Strategy Win: The Optimal Approach to Battleship



Grand Award Runner Up #1 - Senior Div. Life Sciences

Project	Grade	Title
151	12	Adverse Cardiovascular Effects of Burn Pit Exposure: The Role of Oxidative Stress Kalyanaraman, Anirudh



Grand Award Runner Up #1 - Senior Div. Physical Sciences

Project	Grade	Title
213 Oguz, Tarik	11	Small Changes, Big Impact- miRNAs in Lung Cancer Detection



Grand Award Runner Up #2 - Junior Div. Life Sciences

Project	Grade	Title
634 Feng, Andy	8	Mapping Invasive Species With A Drone And Machine Learning Algorithm In San Diego Xu, Henry



Grand Award Runner Up #2 - Junior Div. Physical Sciences

Project	Grade	Title
743 Brum, Charles	8	StarSync: Local Orientation Synchronization Device



Grand Award Runner Up #2 - Senior Div. Life Sciences

Project	Grade	Title
113 Bhalla, Nupur	11	The Relationship Between Emotional Intelligence and Academic Burnout in Adolescents Im, Hannah



Grand Award Runner Up #2 - Senior Div. Physical Sciences

Project	Grade	Title
347 Smith, Joe	12	Lost in the Stars: Chemical Tagging of Magellanic Clouds and Accreted Populations



Junior Innovators Challenge (Thermo Fisher JIC)

Project	Grade	Title
519 Karthik, Arjun	7	The Impact of Social Media on Teen Mental Health
560 Saha, Karishma	8	Structural Brain Volume Differences Across Cognitive Aging Stages: Evidence from MRI
592 Oster, Oliver	8	The Effectiveness of Various Desiccants on Moisture Absorption
634 Feng, Andy	8	Mapping Invasive Species With A Drone And Machine Learning Algorithm In San Diego Xu, Henry
638 Kattamuri, Uma	6	Effect of Increased CO2 Levels on CAM Plant Kalanchoe pH and Stomatal Density
639 Kelsey, Skye	8	The Effect of Arthrospira Platensis on Plastic Degradation
669 Lee, Nathan	8	The Braille Box: Revolutionize Teaching to the Vision-impaired Yang, Matthew
672 Siddiqui, Aishah	6	D3: Diabetic Drink Doctor - A Tri-Sensor Beverage Testing Device for Diabetics
674 Hu, Ethan	8	Low-cost Portable Braille Embosser for Education Xu, Andrew
681 Ahmad, Yasmine	6	Engineering a Ramp for Guinea Pigs
693 Merten, Niall	6	Improving Solar Panel Efficiency
711 Green, Joie	7	May the Best Strategy Win: The Optimal Approach to Battleship
743 Brum, Charles	8	StarSync: Local Orientation Synchronization Device
766 Goel, Leela	8	Effects of Salinity on California Coastal Sage Scrub Seed Germination Ye, Luna
784 Bharadwaj, Harshini	8	MoisTRUE - Which Ingredient is Best in Retaining Moisture for Lip Balm? Rajagopalan, Advita



Kaiser Permanente Blue Ribbon Award

Project	Grade	Title
119 Khushu, Ronit	11	Using AI Based Emotion Recognition to Improve Quality of Life for People with Alexithymia and Autism Disorder
124 Zaragoza, Clay	10	Unconscious Racism in Imperial Valley
143 Arulselvan, Adhiban	9	NeuroStimulate: Home-Based Neuropathy Real-Time Assessment with Vibration, Heat, and Machine Learning Model
151 Kalyanaraman, Anirudh	12	Adverse Cardiovascular Effects of Burn Pit Exposure: The Role of Oxidative Stress
173 Lim, Claire	10	Mitochondrial and Cellular Mechanisms Underlying Neuronal Degeneration in Parkinson's Disease



Lemelson Early Inventor

Project	Grade	Title
661 Akkarakaran, Eric	8	Sensor-Based Irrigation System



Marine Technology Society

Project	Grade	Title
332 He, David	11	An Integrated Analysis of Marine Polyurethane Microplastic Degradation with Genetically Engineered Bacterial Biofilm
561 Valkanov, Martin	7	Eco-Safe Marine Sunscreen: Development and Effectiveness Testing Against Conventional Products
612 Bhatia, Rishabh	7	Applying Image Recognition Algorithms for Identification of Strongylocentrotus Purpuratus
670 Monpays, Eva	7	DIY Beach Cleaning Robot Swigart, Julianna



Mickey Award

Project	Grade	Title
744 Factor, Simon	8	Basketball Bounce and Friction



NASA EARTH System Science Award

Project	Grade	Title
273 Chen, Steven	9	Nature-Inspired Living Device to Degrade Organic Pollutants in Water



National Oceanic and Atmospheric Administration (NOAA) “Taking the Pulse of the Planet” Award

Project	Grade	Title
332 He, David	11	An Integrated Analysis of Marine Polyurethane Microplastic Degradation with Genetically Engineered Bacterial Biofilm



Office of Naval Research

Project	Grade	Title
182 Huang, Lucy	11	Morphological Changes and Kinetic Insights of Copper(I) Oxide Nanocrystals
243 Chandra, Neil	10	D-SAFENet - DNS Security and Filtering Engine for Malicious DNS Detection and Classification
343 Chen, Trevor	12	Perfecting Infrared Gratings for Polarized and Non-Polarized Applications
524 Salem, Yusra	7	Exploring the Impact of Immersive Vs. Traditional Learning on Student Performance
551 Broudy, Golda	8	The Effects of Radiofrequency Radiation on the Development of Cancer
649 Schuh, Chloe	8	Can Eelgrass Remove Toxic Copper Levels from the San Diego Bay?
671 Paband, Humayra	8	The Eco-Buoy: An Ocean-Monitoring Smart Buoy



Professional Engineers in California Government (PECG)

Project	Grade	Title
296 Siddiqui, Aminah	9	Advancing Cost-Effective Space Exploration Using LESAR (Low Cost Extraterrestrial Surface Analysis Rover)
311 Chandra, Anju	11	Immobilization of Cyanobacteria within Hydrogels Aiding in Purified Protein Drug Delivery
670 Monpays, Eva	7	DIY Beach Cleaning Robot Swigart, Julianna
693 Merten, Niall	6	Improving Solar Panel Efficiency



RED (Ronald E. Domb) Award

Project	Grade	Title
262 Xu, Kayley	10	Wearable Stethoscope Array and Localization & Diagnosis of Cardiopulmonary Sounds



Regeneron Biomedical Award

Project	Grade	Title
367 Luo, Anna	11	Allelopathic Effects of Cynara cardunculus on Native Coastal Sage Scrub Species



Ricoh USA, Inc.

Project	Grade	Title
272	11	Plastic that Can Eat Itself? Improving Tensile Strength in Engineered Living Polymers
Chandra, Arthi		



San Diego Astronomy Association

Project	Grade	Title
342 Chen, Lucas	9	Evaluating Effective Waveform Analysis Methods for Minimizing Background Noise in Pulsar Navigation
344 Choubey, Shubhay	11	MicroNet: A Novel Deep Learning Framework For Exoplanet Classification In Microlensing Events
345 Nayak, Aneesh	9	Using N-Body Simulations and Augmented Kepler/TESS Data for a CNN- ML Driven TTV Detection System
347 Smith, Joe	12	Lost in the Stars: Chemical Tagging of Magellanic Clouds and Accreted Populations
349 Xie, Joann	10	Predicting Atmospheric Spectra of Exoplanets Using Deep Learning Algorithms
743 Brum, Charles	8	StarSync: Local Orientation Synchronization Device



San Diego Chapter - American Society of Materials International (ASMI)

Project	Grade	Title
182 Huang, Lucy	11	Morphological Changes and Kinetic Insights of Copper(I) Oxide Nanocrystals
272 Chandra, Arthi	11	Plastic that Can Eat Itself? Improving Tensile Strength in Engineered Living Polymers
273 Chen, Steven	9	Nature-Inspired Living Device to Degrade Organic Pollutants in Water
311 Chandra, Anju	11	Immobilization of Cyanobacteria within Hydrogels Aiding in Purified Protein Drug Delivery
581 Amin, Ilyas	8	Eco-Friendly Corrosion Inhibitors: The Effectiveness of Plant Extracts in Rust Prevention
588 Jones, Ari'Yana	6	How Different Liquids Rust Metal OverTime
684 Bi, Amanda	6	The Flexible, Reusable Sound Insulator



San Diego County Dental Foundation

Project	Grade	Title
331 Foss, Spencer	12	Sucralose Exposed Bacteria's Relationship to Future Increases in Antibiotic Resistance Genes
524 Salem, Yusra	7	Exploring the Impact of Immersive Vs. Traditional Learning on Student Performance
553 Delgado, Flora	7	The Effect of Different Substances on Tooth Decay
562 Zhang, Amy	8	The Healthy Consumption of Popular Drinks for Teenagers



San Diego County Veterinary Medical Association

Project	Grade	Title
101 Mandyam, Tanya	11	Curcumin Alleviates Inflammatory Responses in an Animal Model of Systemic Inflammation
502 Rappoport, Joshua	8	Music's Impact on Dogs



San Diego County Water Authority

Project	Grade	Title
273 Chen, Steven	9	Nature-Inspired Living Device to Degrade Organic Pollutants in Water
280 Perez, Lisa	11	Effects of Copper, Chromium, and Iron on Imperial Beach vs. La Jolla
313 Mahendran, Pranav	9	Utilizing Piezoelectricity to Harness Ocean Waves for Power
631 Bi, Mia	8	Can Pond Water Purify Wastewater?
661 Akkarakaran, Eric	8	Sensor-Based Irrigation System
727 Hensley, Abigail	8	What Kinds of Bacteria are Found in the Waters of Imperial Beach?



San Diego Environmental Professionals Group

Project	Grade	Title
273 Chen, Steven	9	Nature-Inspired Living Device to Degrade Organic Pollutants in Water
278 Munoz, Esteban	11	Dust Suppression Using Biocementation on Exposed Salton Sea Lakebed
284 Zhang, Austin	11	Smart Park Management: A Drone-Based AI Solution for Vegetation Health and Wildfire Risk Mitigation
582 Chua, Oleisa	8	How the Quality of Water In Poway Schools Compares to the State and Federal Water Quality Regulations Jones, Kenzie
649 Schuh, Chloe	8	Can Eelgrass Remove Toxic Copper Levels from the San Diego Bay?
670 Monpays, Eva	7	DIY Beach Cleaning Robot Swigart, Julianna



San Diego Psychological Association

Project	Grade	Title
112	10	Memory Reconstruction
Ajanovic, Aya		
113	11	The Relationship Between Emotional Intelligence and Academic Burnout in Adolescents
Bhalla, Nupur		Im, Hannah
114	9	Automatic Visual-Acoustic Feedback of Speech Articulation for Children with Speech Sound Disorders
Diep, Emily		
117	10	Analyzing the Effects of Depression on Twitter Using Multimodel Analysis
Feng, Eric		
119	11	Using AI Based Emotion Recognition to Improve Quality of Life for People with Alexithymia and Autism Disorder
Khushu, Ronit		
120	11	Interaction Between ApoE-genotype & Lifestyle Factors with Cognition in a Latino Cohort
Lee, Kate		
122	9	Knowledge, Attitude, Behavior and Practice Towards Microplastic Hazards among Community Dwelling Individuals in
Vadi, Ashwin		
171	12	Synaptogenesis of Transplanted Inhibitory Neurons in the Adult Primary Visual Cortex
Le, Maithy		Nguyen, William
206	11	Comparison of Gut Microbiota in Healthy and Alzheimer's Patients
Liang, Cindy		
218	11	Microglial CMPK2 Inhibition as a Novel Therapeutic Strategy for Major Depressive Disorder
Shi, Ryan		
245	11	Developing a Website to Assist with Dyscalculia Using Deep Learning Image Recognition
Chen, Jennifer		Lai, Isabel
519	7	The Impact of Social Media on Teen Mental Health
Karthik, Arjun		
520	6	Role of Emotional State on Visual and Auditory Perception
Mughal, Zara		
523	7	The Effect of Music on Arithmetic Abilities
Ron, Ayelet		
525	7	Generational Effects on Resilience from Gen Z to the Greatest Generation
Sternson, Olympia		
554	8	Reducing Pain and Anxiety During Medical Procedures in Children with Needle Phobia
Ehsan, Anabia		
560	8	Structural Brain Volume Differences Across Cognitive Aging Stages: Evidence from MRI
Saha, Karishma		



San Diego Section, American Chemical Society

Project	Grade	Title
157 Lim, Ricky	11	Development and Evaluation of Nanoantibody-based Disease Diagnostics
181 Capaldi, Charlotte	9	Comparing Cleavage Rates of Modified Nucleosides from a Universal Solid Support
332 He, David	11	An Integrated Analysis of Marine Polyurethane Microplastic Degradation with Genetically Engineered Bacterial Biofilm
551 Broudy, Golda	8	The Effects of Radiofrequency Radiation on the Development of Cancer
581 Amin, Ilyas	8	Eco-Friendly Corrosion Inhibitors: The Effectiveness of Plant Extracts in Rust Prevention
592 Oster, Oliver	8	The Effectiveness of Various Desiccants on Moisture Absorption



Scripps Research "Young Scientist" Award

Project	Grade	Title
144 Dogra, Saanvi	11	Uncovering Molecular Mechanisms for Treatment of Congenital Heart Defects through High-Content Genetic Perturb
195 Bhatt, Prakruti	11	Quantum Annealing and Deep Learning-Driven Plasma Optimization for Refolding Misfolded Proteins in Neurodegen



SLB Honor Society

Project	Grade	Title
743 Brum, Charles	8	StarSync: Local Orientation Synchronization Device



Society for In Vitro Biology

Project	Grade	Title
132	11	GIN Based Predictions of Potential Inhibitors Targeting Mycobacterium-Tuberculosis InhA Essential for XDR-Strains
Chalamalasetty, Abhiram	Li, Anze	



Society of American Military Engineers - San Diego Post

Project	Grade	Title
146	10	Development of a 3D Printed Gel Electrophoresis Chamber Grapilon, Madeline
217	11	Accelerating Drug Discovery with a Fragment-Based Machine Learning Shah, Nisarg
297	10	Universal Mass Scale Sung, Ihan
314	11	Novel Scalable Multiphase Autonomous Vehicle Systems for Emerging Markets Ray Chaudhuri, Shounak
649	8	Can Eelgrass Remove Toxic Copper Levels from the San Diego Bay? Schuh, Chloe
764	6	Are Genetically Modified Plants a Solution for Farming on Mars? Diep, William



Society of Women Engineers - San Diego County Section

Project	Grade	Title
201 Goel, Khushee	11	An EEG-Based Approach for Measuring IAD Risk Due to Social Media Overuse
262 Xu, Kayley	10	Wearable Stethoscope Array and Localization & Diagnosis of Cardiopulmonary Sounds
311 Chandra, Anju	11	Immobilization of Cyanobacteria within Hydrogels Aiding in Purified Protein Drug Delivery
552 Cubukcu, Emel	7	Back to Bach: Our Brain's Perception of Music
611 Bantval, Maya	8	Voice-Based Object Detection Device for the Visually Impaired
649 Schuh, Chloe	8	Can Eelgrass Remove Toxic Copper Levels from the San Diego Bay?



The Biophysical Society

Project	Grade	Title
144 Dogra, Saanvi	11	Uncovering Molecular Mechanisms for Treatment of Congenital Heart Defects through High-Content Genetic Perturb:



Thermo Fisher Scientific Equity and Inclusion Award

Project	Grade	Title
557 Kim, Hyunggyu	8	Reliable Gaze-Driven Medical Communication Boards Using Consistency Loss with Conjugate Gaze Park, JoonWoo
561 Valkanov, Martin	7	Eco-Safe Marine Sunscreen: Development and Effectiveness Testing Against Conventional Products
601 Bojja, Ishan	6	Congenital Nystagmus Diagnosis with Artificial Intelligence Eye Tracking Jian, Howell
663 Azevedo, Valente	7	Raspberry Eye
672 Siddiqui, Aishah	6	D3: Diabetic Drink Doctor - A Tri-Sensor Beverage Testing Device for Diabetics



Torrey Pines Docent Society

Project	Grade	Title
273 Chen, Steven	9	Nature-Inspired Living Device to Degrade Organic Pollutants in Water
284 Zhang, Austin	11	Smart Park Management: A Drone-Based AI Solution for Vegetation Health and Wildfire Risk Mitigation
367 Luo, Anna	11	Allelopathic Effects of <i>Cynara cardunculus</i> on Native Coastal Sage Scrub Species
561 Valkanov, Martin	7	Eco-Safe Marine Sunscreen: Development and Effectiveness Testing Against Conventional Products
612 Bhatia, Rishabh	7	Applying Image Recognition Algorithms for Identification of <i>Strongylocentrotus Purpuratus</i>
766 Goel, Leela	8	Effects of Salinity on California Coastal Sage Scrub Seed Germination Ye, Luna



U.S. Metric Association

Project	Grade	Title
693 Merten, Niall	6	Improving Solar Panel Efficiency



US Air Force

Project	Grade	Title
243	10	D-SAFENet - DNS Security and Filtering Engine for Malicious DNS Detection and Classification
Chandra, Neil		
314	11	Novel Scalable Multiphase Autonomous Vehicle Systems for Emerging Markets
Ray Chaudhuri, Shounak		
551	8	The Effects of Radiofrequency Radiation on the Development of Cancer
Broudy, Golda		
697	8	Application of Machine Learning to Decrease Aviation Incident Rates
Wadhwani, Aarav		



Water Environment Federation/Stockholm Junior Water Prize

Project	Grade	Title
273 Chen, Steven	9	Nature-Inspired Living Device to Degrade Organic Pollutants in Water
332 He, David	11	An Integrated Analysis of Marine Polyurethane Microplastic Degradation with Genetically Engineered Bacterial Biofilm
333 Lerman, Ava	9	Effectiveness of Ultrasonic Waves on Cyanobacteria for Algal Bloom Mitigation
364 Berke, Jeremy	11	How Effective is Coral-Safe Sunscreen In Protecting Water Plants Like Water-Weed? Hernandez Ruiz, Valeria
371 Saxena, Parth	11	A Novel AI-Driven Rainfall Monitoring System for Sustainable Irrigation in Developing Regions



WaterReuse Association - San Diego Society

Project	Grade	Title
122 Vadi, Ashwin	9	Knowledge, Attitude, Behavior and Practice Towards Microplastic Hazards among Community Dwelling Individuals in
273 Chen, Steven	9	Nature-Inspired Living Device to Degrade Organic Pollutants in Water
369 Rojas, Areli	11	To What Extent Does the Toxicity of Chlorine Affect the Raphanus sativus?
582 Chua, Oleisa	8	How the Quality of Water In Poway Schools Compares to the State and Federal Water Quality Regulations Jones, Kenzie
633 Combs, Valerie	7	The Detection of Microplastics in Drinking Water Using Machine Learning
721 Beraha, Isaac	8	The Effect of UV Light, Blue Light, and Laser Light on Bacteria



Yale Science and Engineering Association

Project	Grade	Title
144 Dogra, Saanvi	11	Uncovering Molecular Mechanisms for Treatment of Congenital Heart Defects through High-Content Genetic Perturb: