

American Academy of Pediatrics Climate Change and Health Committee

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

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

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

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American Psychological Association

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

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American Society of Civil Engineers

Project	Grade	Title
273	9	Nature-Inspired Living Device to Degrade Organic Pollutants in Water
Chen,	Steven	
283	11	Investigating Carbon Debt and Socio-Environmental Inequality in Transportation Using Al-GIS Modeling
Xia, Ol	ina	
284	11	Smart Park Management: A Drone-Based AI Solution for Vegetation Health and Wildfire Risk Mitigation
Zhang,	, Austin	
371	11	A Novel AI-Driven Rainfall Monitoring System for Sustainable Irrigation in Developing Regions
Saxena	a, Parth	
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
Paban	d, Humayra	

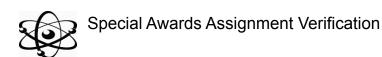
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American Society of Mechanical Engineers (ASME)

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

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Armed Forces Communications & Electronics Association (AFCEA)

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

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Association for Women Geoscientists

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

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Association for Women in Science

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

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Broadcom Coding with Commitment

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

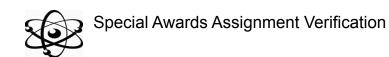
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Building Industry Association Cares

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

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California School Nurse Organization San Diego - Imperial

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

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CaSEF Qualified

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

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CaSEF Qualified

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

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CaSEF Qualified

Project	Grade	Title
331	12	Sucralose Exposed Bacteria's Relationship to Future Increases in Antibiotic Resistance Genes
Foss, S		
332 He, Da	11 vid	An Integrated Analysis of Marine Polyurethane Microplastic Degradation with Genetically Engineered Bacterial Biofilr
343	12	Perfecting Infrared Gratings for Polarized and Non-Polarized Applications
Chen,	Trevor	
344	11	MicroNet: A Novel Deep Learning Framework For Exoplanet Classification In Microlensing Events
	ey, Shubhay	
347 Smith,	12 Joe	Lost in the Stars: Chemical Tagging of Magellanic Clouds and Accreted Populations
367	11	Allelopathic Effects of Cynara cardunculus on Native Coastal Sage Scrub Species
Luo, Ar	nna	
372 Tipirne	9 ni, Siri	From Plants to Ecosystems: Using Nitrogen-15 to Detect Stress
374 Zhang,	11 Elvin	Automated Plant Disease Detection through Multi-sensory Analysis for Space Travel Application
501 Hollma	6 nn, Thrace	Do Young or Adult Guinea Pigs Learn Faster?
513 Cooper	8 ·, Aaron	Does Neurodivergence Affect the Way People See Ambiguous Illusions?
519 Karthik	7 , Arjun	The Impact of Social Media on Teen Mental Health
524 Salem,	7	Exploring the Impact of Immersive Vs. Traditional Learning on Student Performance
525	7 on, Olympia	Generational Effects on Resilience from Gen Z to the Greatest Generation
543 Jasim,	8	Will Juice Lose Its Vitamin C And How Can It Be Preserved?
554	8 Anabia	Reducing Pain and Anxiety During Medical Procedures in Children with Needle Phobia
560 Saha, k	8 Karishma	Structural Brain Volume Differences Across Cognitive Aging Stages: Evidence from MRI
561 Valkand	7 ov, Martin	Eco-Safe Marine Sunscreen: Development and Effectiveness Testing Against Conventional Products
562 Zhang,	8 Amy	The Healthy Consumption of Popular Drinks for Teenagers
581 Amin, I	8	Eco-Friendly Corrosion Inhibitors: The Effectiveness of Plant Extracts in Rust Prevention
592 Oster, 0	8	The Effectiveness of Various Desiccants on Moisture Absorption
601 Bojja, Is	6	Congenital Nystagmus Diagnosis with Artificial Intelligence Eye Tracking Jian, Howell

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CaSEF Qualified

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

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CaSEF Qualified

Projec	t Grade	Title
756	6	Measuring Magnetic Susceptibility of Liquids for Contaminates
Str	oud-Healey, Fran	klin
766	8	Effects of Salinity on California Coastal Sage Scrub Seed Germination
Go	el, Leela	Ye, Luna
770	8	Sustainable Gardening: Kitchen Scraps to Thriving Tomatoes!
Ro	y, Amelie	
782	8	Decomposition of Compostable Bags and Best Brand for Carrying San Diego's Waste
And	dersen, Zachary	
784	8	MoisTRUE - Which Ingredient is Best in Retaining Moisture for Lip Balm?
Bha	aradwaj, Harshini	Rajagopalan, Advita
787	8	The Effect of Natural Heat Protectant Versus Synthetic Heat Protectant on Hair Tensile Strength and Cells
Din	nenstein, Anael	

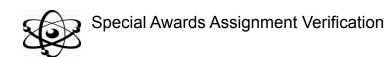
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DOD STEM Leadership Prize

Project	Grade	Title
693	6	Improving Solar Panel Efficiency
Merten Niall		

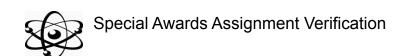
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DRS Daylight Solutions

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

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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
Parthas	sarathy, Jey	anth Na

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General Atomics Sciences Education Foundation

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

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Grand Award - Junior Div. Life Sciences

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

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Grand Award - Junior Div. Physical Sciences

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

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Grand Award - Senior Div. Life Sciences

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

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Grand Award - Senior Div. Physical Sciences

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

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

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

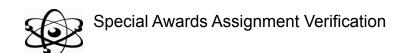
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Grand Award Runner Up #1 - Junior Div. Physical Sciences

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

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Kalyanaraman, Anirudh

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

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

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

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

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

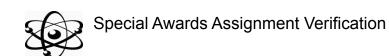
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Grand Award Runner Up #2 - Junior Div. Physical Sciences

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

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

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

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

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

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Junior Innovators Challenge (Thermo Fisher JIC)

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

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Kaiser Permanente Blue Ribbon Award

Project	Grade	Title
119	11	Using Al Based Emotion Recognition to Improve Quality of Life for People with Alexithymia and Autism Disorder
Khush	u, Ronit	
124	10	Unconscious Racism in Imperial Valley
Zarago	oza, Clay	
143	9	NeuroStimulate: Home-Based Neuropathy Real-Time Assessment with Vibration, Heat, and Machine Learning Model
Arulse	lvan, Adhiba	n
151	12	Adverse Cardiovascular Effects of Burn Pit Exposure: The Role of Oxidative Stress
Kalyan	naraman, An	irudh
173	10	Mitochondrial and Cellular Mechanisms Underlying Neuronal Degeneration in Parkinson's Disease
Lim, C	laire	

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Lemelson Early Inventor

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

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Marine Technology Society

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

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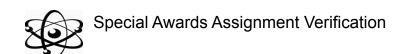


Mickey Award

Factor, Simon

Project	Grade	Title
744	8	Basketball Bounce and Friction

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NASA EARTH System Science Award

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

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

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

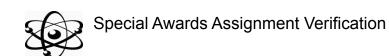
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Office of Naval Research

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

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Professional Engineers in California Government (PECG)

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

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RED (Ronald E. Domb) Award

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

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Regeneron Biomedical Award

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

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Ricoh USA, Inc.

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

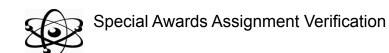
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San Diego Astronomy Association

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

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

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San Diego County Dental Foundation

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

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San Diego County Veterinary Medical Association

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

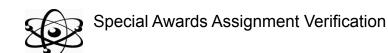
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San Diego County Water Authority

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

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San Diego Environmental Professionals Group

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

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San Diego Psychological Association

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

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San Diego Section, American Chemical Society

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

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Scripps Research "Young Scientist" Award

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

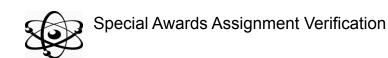
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SLB Honor Society

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

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Society for In Vitro Biology

Project	Grade	Title
132	11	GIN Based Predictions of Potential Inhibitors Targeting Mycobacterium-Tuberculosis InhA Essential for XDR-Strains
Chalar	malasetty, Ab	hiram Li, Anze

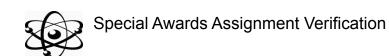
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Society of American Military Engineers - San Diego Post

Project	Grade	Title
146	10	Development of a 3D Printed Gel Electrophoresis Chamber
Grapilo	on, 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 Cl	naudhuri, Sh	ounak
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, V	Villiam	

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Society of Women Engineers - San Diego County Section

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

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The Biophysical Society

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

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Thermo Fisher Scientific Equity and Inclusion Award

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

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Torrey Pines Docent Society

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

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U.S. Metric Association

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

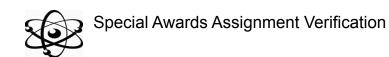
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US Air Force

Project	Grade	Title
243	10	D-SAFENet - DNS Security and Filtering Engine for Malicious DNS Detection and Classification
Chand	ra, Neil	
314	11	Novel Scalable Multiphase Autonomous Vehicle Systems for Emerging Markets
Ray Cl	haudhuri, Sh	nounak
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		

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Water Environment Federation/Stockholm Junior Water Prize

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

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WateReuse Association - San Diego Society

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

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Yale Science and Engineering Association

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

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