

# 2026 Alabama Science and Engineering Fair (ASEF)



## Senior Division (grades 9-12)

### 2026 ASEF Senior Division Special Award Winners

#### **The Office of Naval Research- Naval Science Award**

Special Award Description : This award recognizes up to 3 individual projects that show excellence in science or engineering. Winners will receive a certificate, a medallion and an award verification letter redeemable for a \$75 cash award.

Award Name: Naval Science Award

Award Sponsor: The Office of Naval Research

Student Name: Minlu Wang-He

Award Prize: \$75 from ONR

Project Number: SR-100-0168

Project Name: Identifying Biological Control Agents for Bacterial Spot Disease|

Award Name: Naval Science Award

Award Sponsor: The Office of Naval Research

Student Name: Leland Barbour

Award Prize: \$75 from ONR

Project Number: SR-900-0133

Project Name: Rocket Plume Exhaust Effects During Mars Ascent

Award Name: Naval Science Award

Award Sponsor: The Office of Naval Research

Student Name: Jackson Odom

Award Prize: \$75 from ONR

Project Number: SR-600-0047

Project Name: The Effect of Fiber Orientation on HDPE Composites Reinforced by Vinyl Ester Rebar

#### **Citadel- Citadel Securities Innovation Prize**

Special Award Description : This award recognizes exemplified ingenuity and innovation through their project idea, goals, and/or design, thinking creatively about how to solve problems. The award winner will receive a certificate and a \$100 cash award.

Award Name: Citadel Securities Innovation Prize

Award Sponsor: Citadel

Student Name: Danielle George

Award Prize: \$100 from Society for Science

Project Number: SR-800-0069

Project Name: Exploring Tampon-Derived Vaginal Fluids for Early Detection of Endometrial Cancer via Biomarker Analysis

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## **QuantHub- QuantHub Distinguished Data Scholar Award**

Special Award Description : This award recognizes a student who has shown exceptional proficiency and creativity in data science. The awardee will receive a certificate and \$200 cash award.

Award Name: QuantHub Distinguished Data Scholar Award

Award Sponsor: QuantHub

Student Name: Walter Anderson, Parker Madden

Award Prize: \$200

Project Number: SR-1200-0050-T

Project Name: Magic: The Gathering Price Prediction Model

## **East Alabama and West Georgia local section of the American Chemical Society- East Alabama and West Georgia ACS Award**

Special Award Description : This award is sponsored by the East Alabama and West Georgia local section of the American Chemical Society and celebrates creativity and understanding within chemical science. The awardee will receive a certificate and \$200 cash award.

Award Name: East Alabama and West Georgia ACS Award

Award Sponsor: East Alabama and West Georgia local section of the American Chemical Society

Student Name: Emma Holt

Award Prize: \$200

Project Number: SR-400-0126

Project Name: Bursting with Chemistry

## **100+ Women Strong at Auburn University- 100+ Women Strong Achievement Award**

Special Award Description : This achievement award recognizes a student that exemplifies excellence through research in any category. The awardee will receive \$200 cash award and a certificate.

Award Name: 100+ Women Strong Achievement Award

Award Sponsor: 100+ Women Strong at Auburn University

Student Name: Wanchen Yao

Award Prize: \$200

Project Number: SR-500-0035

Project Name: An Edge-AI Smart Toothbrush for Real-Time Detection of Pediatric Dental Caries

Award Name: 100+ Women Strong Achievement Award

Award Sponsor: 100+ Women Strong at Auburn University

Student Name: Ayesha Izhar

Award Prize: \$200

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Project Number: SR-600-0043

Project Name: Efficient, or Just Expensive

## **Department of Biological Sciences at Auburn University- Biological Sciences Award in Cell, Molecular, Microbiology and Biochemistry**

Special Award Description : This award recognizes an outstanding poster in the Cell, Molecular, Microbiology & Biochemistry category by a high school student. The awardee will receive a certificate and a \$200 cash award.

Award Name: Biological Sciences Award in Cell, Molecular, Microbiology and Biochemistry

Award Sponsor: Department of Biological Sciences at Auburn University

Student Name: Amelie Hixson

Award Prize: \$200

Project Number: SR-300-0173

Project Name: PRMT5 Inhibition Induces Metabolic Reprogramming and Disrupts Blood-Brain Barrier Gene Expression in Human Brain Endothelial Cells

## **Department of Biological Sciences at Auburn University- Biological Sciences Award in Animal and Plant Sciences**

Special Award Description : This award recognizes an outstanding poster in the Animal and Plant Sciences category by a high school student. The awardee will receive a certificate and a \$200 cash award.

Award Name: Biological Sciences Award in Animal and Plant Sciences

Award Sponsor: Department of Biological Sciences at Auburn University

Student Name: Harsha Bheemanathini

Award Prize: \$200

Project Number: SR-100-0071

Project Name: The Effects of Menstrual Product Leachates on Planarian Survival

## **Department of Chemistry and Biochemistry at Auburn University- Chemistry and Biochemistry Award**

Special Award Description : This award is designed to recognize the top chemistry/biochemistry project. The awardee will receive a certificate and \$200 cash award.

Award Name: Chemistry and Biochemistry Award

Award Sponsor: Department of Chemistry and Biochemistry at Auburn University

Student Name: Joshua Minnon

Award Prize: \$200

Project Number: SR-400-0123

Project Name: The Case of the Missing Volume: An Investigation of Ratio-Dependent Volume Contraction in Miscible Liquid Systems

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## **Department of Geosciences at Auburn University- Geosciences Award**

Special Award Description : This award recognizes high achievement in the area of geoscience, geology, and geography. The winner will receive a certificate and \$200 cash award.

Award Name: Geosciences Award

Award Sponsor: Department of Geosciences at Auburn University

Student Name: Anna Ai

Award Prize: \$200

Project Number: SR-700-0137

Project Name: Long-Term Trend and Modeling Analysis of PM2.5 Concentrations in Madison County

## **Department of Geosciences at Auburn University- GeoExplorer Award**

Special Award Description : This award honors students who demonstrate exceptional creativity and originality in geoscience research, exploring Earth's processes, landscapes, and environments in imaginative and impactful ways. This award recognizes high achievement in the area of geoscience, geology, geography, and environmental studies. The winner will receive a certificate and \$200 cash award.

Award Name: GeoExplorer Award

Award Sponsor: Department of Geosciences at Auburn University

Student Name: Anushka Behara

Award Prize: \$200

Project Number: SR-700-0064

Project Name: Epigenetic Memory of Environmental Pollution: Long-Term Effects of Urban Toxicants on Planarian Regeneration

## **Southeastern Center of Robotics Education (SCORE) at Auburn University- Innovation of Robotic Systems**

Special Award Description : This award recognizes a project that shows great promise in the use of robotic systems. The winner will receive a certificate and a \$200 cash award.

Award Name: Innovation of Robotic Systems

Award Sponsor: Southeastern Center of Robotics Education (SCORE) at Auburn University

Student Name: Weijin Xu

Award Prize: \$200

Project Number: SR-500-0037

Project Name: A Modular and Detachable Ankle Rehabilitation Device with Multimodal Training Functions

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## **Department of Physics at Auburn University- Physics Award for Ingenuity and Inventiveness**

Special Award Description : This award recognizes someone who demonstrates an understanding of the laws of physics and how to use them to interpret and understand the world around us. The winner will receive a certificate and \$200 cash award.

Award Name: Physics Award for Ingenuity and Inventiveness

Award Sponsor: Department of Physics at Auburn University

Student Name: Kriti Akarapu

Award Prize: \$200

Project Number: SR-900-0134

Project Name: Synthesis and Optical Properties of a Luminescent Material with Simultaneous Upconversion and Downconversion

## **Associate Dean for Research, College of Sciences and Mathematics- Innovation in Science Research Award**

Special Award Description : This award recognizes an innovative topic or innovative approaches in research methodologies for a science project. The awardee will receive a certificate and \$200 cash award.

Award Name: Innovation in Science Research Award

Award Sponsor: Associate Dean for Research, College of Sciences and Mathematics

Student Name: Anushka Behara

Award Prize: \$200

Project Number: SR-700-0064

Project Name: Epigenetic Memory of Environmental Pollution: Long-Term Effects of Urban Toxicants on Planarian Regeneration

## **School of Aviation at Auburn University- Excellence in Research or Engineering in Aviation and Aerospace Science**

Special Award Description : This award honors an individual who has demonstrated exceptional accomplishment in aviation or aerospace research, or in the design, development, or engineering of an aviation or aerospace project. The recipient will be recognized for their scholarly merit, innovation, and contribution to advancing the field. The award includes a formal certificate of achievement and a \$200 cash honorarium

Award Name: Excellence in Research or Engineering in Aviation and Aerospace Science

Award Sponsor: School of Aviation at Auburn University

Student Name: Ezra Hall, Armaan Sagar

Award Prize: \$200

Project Number: SR-500-0181-T

Project Name: Responsive Aero

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## **I-STEM Connector at Auburn University- Garage Science Award**

Special Award Description : Many scientific discoveries or engineering marvels have happened outside of a laboratory. This award celebrates a student who created an outstanding project within their home or garage. The winner will receive a certificate and \$200 cash award.

Award Name: Garage Science Award

Award Sponsor: I-STEM Connector at Auburn University

Student Name: Anna Holland

Award Prize: \$200

Project Number: SR-800-0132

Project Name: Break a Leg!

## **Office of Academic Engagement, Innovation and Opportunity, College of Sciences and Mathematics- Spirit of Excellence Award**

Special Award Description : This award recognizes excellence in science research by a student. The winner will receive a certificate and \$200 cash award.

Award Name: Spirit of Excellence Award

Award Sponsor: Office of Academic Engagement, Innovation and Opportunity, College of Sciences and Mathematics

Student Name: Saisha Sahoo

Award Prize: \$200

Project Number: SR-700-0063

Project Name: Examining the Phytoremediation Potential of Pontederia cordata for Lithium, Cobalt, and Lead

## **Department of Mathematics and Statistics at Auburn University- Talent in Mathematics and Statistics Award**

Special Award Description : This award recognizes a project, from any category, that demonstrates a strong mathematical and statistical analysis. The winner will receive a certificate and a \$200 cash award.

Award Name: Talent in Mathematics and Statistics Award

Award Sponsor: Department of Mathematics and Statistics at Auburn University

Student Name: Mason Hilburgh

Award Prize: \$200

Project Number: SR-900-0191

Project Name: Blast Off The Torpedo (Bats)!!!

## **Aerospace Engineering Department at Auburn University- Future Rocket Scientist Award**

Special Award Description : This award recognizes high achievement in research related to Aerospace Engineering. The winner will receive a certificate and a \$200 cash award.

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Award Name: Future Rocket Scientist Award  
Award Sponsor: Aerospace Engineering Department at Auburn University  
Student Name: Leland Barbour  
Award Prize: \$200  
Project Number: SR-900-0133  
Project Name: Rocket Plume Exhaust Effects During Mars Ascent

## **Department of Biosystems Engineering at Auburn University- Biosystems Engineering Award**

Special Award Description : This achievement award recognizes an individual that demonstrates an innovative approach to application of math and/or engineering to biological systems. The winner will receive a certificate and a \$200 cash award.

Award Name: Biosystems Engineering Award  
Award Sponsor: Department of Biosystems Engineering at Auburn University  
Student Name: Arnav Aggarwal  
Award Prize: \$200  
Project Number: SR-1200-0195  
Project Name: AI/ML-driven systems-level analysis identifies CEACAM1 as a neuroinflammatory metabolic signaling vulnerability in Parkinson's disease

## **Department of Chemical Engineering at Auburn University- Chemical Engineering Award**

Special Award Description : This award recognizes high achievement in scientific research in fields related to Chemical Engineering or Applied Chemistry. The winner will receive a certificate and a \$200 cash award.

Award Name: Chemical Engineering Award  
Award Sponsor: Department of Chemical Engineering at Auburn University  
Student Name: Jackson Odom  
Award Prize: \$200  
Project Number: SR-600-0047  
Project Name: The Effect of Fiber Orientation on HDPE Composites Reinforced by Vinyl Ester Rebar

## **Department of Electrical and Computer Engineering at Auburn University- Electrical and Computer Engineering Award**

Special Award Description : This award is presented to an outstanding project in the Robotic Systems and Communication Technology category. The winner will receive a certificate and \$200 cash award.

Award Name: Electrical and Computer Engineering Award  
Award Sponsor: Department of Electrical and Computer Engineering at Auburn University  
Student Name: Michael Birkhead, Gabriel Stutheit  
Award Prize: \$200

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Project Number: SR-1100-0194-T

Project Name: Animal Go!

## **Auburn University Bee Center- Auburn University Bee Center Pollinator Stewardship Award**

Special Award Description : This award recognizes projects that align with the AU-Bees mission of promoting honey bee, native bee, and other native pollinator communities. The awardee will receive a certificate and \$200 cash award.

Award Name: Auburn University Bee Center Pollinator Stewardship Award

Award Sponsor: Auburn University Bee Center

Student Name: Rowan Seiler

Award Prize: \$200

Project Number: SR-100-0115

Project Name: A Bird's Life

## **Edward Via College of Osteopathic Medicine (VCOM-Auburn)- Excellence in Medical Science Award**

Special Award Description : This award recognizes a project that shows great promise in the fields of Medicine, Health, and Translational Medical Science. The awardee will receive a certificate and \$200 cash award.

Award Name: Excellence in Medical Science Award

Award Sponsor: Edward Via College of Osteopathic Medicine (VCOM-Auburn)

Student Name: Dev Patel

Award Prize: \$200

Project Number: SR-800-0068

Project Name: Studying the Impact of WOA3d Inhibitor Molecule on Triple-Negative Breast Cancer Cells Utilizing Western Blots and Time-Course Treatments

## **Dean of the College of Sciences and Mathematics at Auburn University- Future Scientist or Mathematician Award**

Special Award Description : This award will be given to a student, in any category, who demonstrates a complete, thorough and current understanding of a scientific topic during their interview. As such, this student shows great promise as a future scientific researcher. The award winner will receive a certificate and a \$200 cash award.

Award Name: Future Scientist or Mathematician Award

Award Sponsor: Dean of the College of Sciences and Mathematics at Auburn University

Student Name: Akhil Batchu

Award Prize: \$200

Project Number: SR-400-0057

Project Name: Computational Investigation of Electronic Effects on Reactivity in Aromatic Heterocycles

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## **Dean of the Samuel Ginn College of Engineering at Auburn University- Outstanding Engineering Award**

Special Award Description : This award recognizes a project, in any category, that demonstrates an innovative application of math or science to a societal challenge. The award winner will receive a certificate for their efforts and a \$200 cash award.

Award Name: Outstanding Engineering Award

Award Sponsor: Dean of the Samuel Ginn College of Engineering at Auburn University

Student Name: Jessica Shu

Award Prize: \$200

Project Number: SR-500-0179

Project Name: ThermalPvpils: A Passive Power-Saving Artificial-Intelligence Driven Shell that Makes your Building Cooler in Summer and Warmer in Winter

## **Dean of the College of Agriculture at Auburn University- Innovative Practices in Agriculture Award**

Special Award Description : This cash prize of \$200 recognizes innovative research related to soil management, crop production, or water resources.

Award Name: Innovative Practices in Agriculture Award

Award Sponsor: Dean of the College of Agriculture at Auburn University

Student Name: Violet Borchert

Award Prize: \$200

Project Number: SR-100-0031

Project Name: Creation of an Eastern Oyster with an Easily Modified Genome

## **Dean of the College of Forestry, Wildlife and Environment at Auburn University- Excellence in Environmental Stewardship Award**

Special Award Description : This award is presented to a student who has demonstrated outstanding commitment and innovative approaches to the conservation and management of natural resources, wildlife, or the environment. The winner will receive a certificate and \$200 cash award. The awardee will also receive the Ricoh Sustainable Development Award and trees planted on their behalf by One Tree Planted.

Award Name: Excellence in Environmental Stewardship Award

Award Sponsor: Dean of the College of Forestry, Wildlife and Environment at Auburn University

Student Name: Jaxon Hutto, Jeremiah Ray

Award Prize: \$200

Project Number: SR-700-0185-T

Project Name: Simulating Narcotic Introduction in a Micro-Ecosystem: Effects of Diphenhydramine on Crickets and Worms

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## **Dean of the Harrison College of Pharmacy at Auburn University- Medical Interventions Award**

Special Award Description : The Auburn University Harrison College of Pharmacy is providing a \$200 cash prize for a student whose project aims to improve human health and longevity by translating novel discoveries in the biomedical sciences into effective activities and tools for clinical and public health use.

Award Name: Medical Interventions Award

Award Sponsor: Dean of the Harrison College of Pharmacy at Auburn University

Student Name: Nikita Prabhakar

Award Prize: \$200

Project Number: SR-800-0130

Project Name: A Dual-Mode Point-of-Care Assay for Noninvasive Monitoring of Iron Levels in Menstrual Blood

## **Dean of the College of Veterinary Medicine at Auburn University- Health and Wellness of Animals Award**

Special Award Description : The Auburn University College of Veterinary Medicine is providing a \$200 cash prize in recognition of one research project that shows the most promise for improving the health and well-being of agricultural or human companion animals.

Award Name: Health and Wellness of Animals Award

Award Sponsor: Dean of the College of Veterinary Medicine at Auburn University

Student Name: Annie Bao

Award Prize: \$200

Project Number: SR-100-0167

Project Name: Evaluation of Premature Platelet Aging or Platelet Desialylation in Dogs with Immune Thrombocytopenia

## **Dean of the College of Human Sciences- STEM for Human Well-Being Award**

Special Award Description : The Human Sciences Award is presented to an exceptional project in Behavioral and Social Sciences that illustrates the role of STEM in understanding human behavior, social systems, and quality of life. This award recognizes research that integrates scientific investigation, data analysis, or technological thinking to address real-world human challenges—reinforcing the idea that STEM is everywhere, even in disciplines centered on people, relationships, and communities. The award winner will receive a certificate and a \$200 cash award.

Award Name: STEM for Human Well-Being Award

Award Sponsor: Dean of the College of Human Sciences

Student Name: Emalyn Smitherman

Award Prize: \$200

Project Number: SR-200-0206

Project Name: Under Pressure

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## **Dean of the College of Liberal Arts- STEM in Society Award**

Special Award Description : The College of Liberal Arts Award is presented to an exceptional project that bridges STEM practices with liberal arts perspectives to address real-world challenges. This award celebrates research that integrates data, analysis, and innovation with human-centered inquiry, reinforcing that STEM is everywhere—shaping how we communicate, create, and understand the world. The award winner will receive a certificate and a \$200 cash award.

Award Name: STEM in Society Award

Award Sponsor: Dean of the College of Liberal Arts

Student Name: Sungbin Park

Award Prize: \$200

Project Number: SR-1100-0192

Project Name: The Effect of Prompt Engineering on Accuracy and Consistency in Financial News Sentiment Classification Using Large Language Models

## **Boeing- Boeing Innovation Award**

Special Award Description : The Boeing Innovation Award honors a student project that exemplifies creativity, technical skill, and problem solving through STEM. This award recognizes research or design that applies engineering, technology, or scientific analysis to real world applications—celebrating the role of innovation in advancing aerospace, exploration, and global connectivity. The award winner will receive a certificate and a \$200 cash award.

Award Name: Boeing Innovation Award

Award Sponsor: Boeing

Student Name: Mia Hall, Michael Mazur

Award Prize: \$200

Project Number: SR-500-0036-T

Project Name: Parametric Evaluation of a Deployable Kresling Origami Lattice Structure for Enhanced Automotive Crashworthiness

## **Regeneron- Regeneron Moving Biomedical Science Award**

Special Award Description : Society for Science is proud to partner with Regeneron to inspire and celebrate the next generation of biomedical science heroes. The Regeneron Moving Biomedical Science Award, sponsored by Regeneron, is a \$375 award to be given at Society-affiliated science fairs in the United States and its territories in 2025.

Award Name: Regeneron Moving Biomedical Science Award

Award Sponsor: Regeneron

Student Name: Danielle George

Award Prize: \$375 from Society from Science + ISEF Bid

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Project Number: SR-800-0069

Project Name: Exploring Tampon-Derived Vaginal Fluids for Early Detection of Endometrial Cancer via Biomarker Analysis

## **Department of Biological Sciences at Auburn University- Biological Sciences Moving Science Award**

Special Award Description : The Auburn University Department of Biological Sciences Moving Science Award recognizes an exceptional project for outstanding scientific inquiry, creativity, and innovation. Judged on research quality, methodology, presentation clarity, and impact, the winner is celebrated for significant contributions to science and is seen as a future leader with limitless potential, inspiring creativity and innovation in future generations. The winner will receive a certificate and cash prize of \$375.

Award Name: Biological Sciences Moving Science Award

Award Sponsor: Department of Biological Sciences at Auburn University

Student Name: Annie Bao

Award Prize: \$375 + ISEF Bid

Project Number: SR-100-0167

Project Name: Evaluation of Premature Platelet Aging or Platelet Desialylation in Dogs with Immune Thrombocytopenia

## **Geosciences Moving Science Award- Geosciences Moving Science Award**

Special Award Description : The Auburn University Department of Geosciences Moving Science Award recognizes an exceptional project for outstanding scientific inquiry, creativity, and innovation. Judged on research quality, methodology, presentation clarity, and impact, the winner is celebrated for significant contributions to science and is seen as a future leader with limitless potential, inspiring creativity and innovation in future generations. The winner will receive a certificate and cash prize of \$375.

Award Name: Geosciences Moving Science Award

Award Sponsor: Geosciences Moving Science Award

Student Name: Corbin Hawkes

Award Prize: \$375 + ISEF Bid

Project Number: SR-500-0127

Project Name: A Low-Cost, LiDAR-based Car Collision Avoidance Solution

## **Aptar CSP Technologies- Aptar Moving Science Award**

Special Award Description : The Aptar Moving Science Award recognizes an exceptional project for outstanding scientific inquiry, creativity, and innovation. Judged on research quality, methodology, presentation clarity, and impact, the winner is celebrated for significant

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contributions to science and is seen as a future leader with limitless potential, inspiring creativity and innovation in future generations. The winner will receive a certificate and cash prize of \$375.

Award Name: Aptar Moving Science Award

Award Sponsor: Aptar CSP Technologies

Student Name: Mia Hall, Michael Mazur

Award Prize: \$375 + ISEF Bid

Project Number: SR-500-0036-T

Project Name: Parametric Evaluation of a Deployable Kresling Origami Lattice Structure for Enhanced Automotive Crashworthiness

## **College of Liberal Arts at Auburn University- College of Liberal Arts Apex of Excellence Award**

Special Award Description : The Auburn University College of Liberal Arts Apex of Excellence Award Apex of Excellence Award is presented to a top project that exemplifies outstanding innovation, creativity, and scientific rigor. The recipient of this award demonstrates exceptional problem-solving skills, a deep understanding of scientific principles, or the ability to apply engineering concepts to real-world challenges. The winning project exemplifies excellence in research, design, and execution, setting a high standard for future participants. The winner will receive a certificate and cash prize of \$500.

Award Name: College of Liberal Arts Apex of Excellence Award

Award Sponsor: College of Liberal Arts at Auburn University

Student Name: Saisha Sahoo

Award Prize: \$500

Project Number: SR-700-0063

Project Name: Examining the Phytoremediation Potential of *Pontederia cordata* for Lithium, Cobalt, and Lead

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## 2026 ASEF Senior Division Category Award Winners

1st place receives \$200 cash prize, certificate and ASEF medal  
2nd place receives \$100 cash prize, certificate and ASEF medal  
3rd place receives certificate and ASEF medal

### **0100 Animal and Plant Sciences**

3rd Place

Clark Baty - CARSEF

SR-100-0070 - Impact of tRNA Gene Knockouts on Yeast Cell Quiescence

2nd Place

Annie Bao - GEARSEF

SR-100-0167 - Evaluation of Premature Platelet Aging or Platelet Desialylation in Dogs with Immune Thrombocytopenia

1st Place

Minlu Wang-He - GEARSEF

SR-100-0168 - Identifying Biological Control Agents for Bacterial Spot Disease

### **0200 Behavioral & Social Sciences**

3rd Place

Parker Thompson - GEARSEF

SR-200-0170 - Perceived Access vs. Actual Access: Mental Health Resource Utilization Among College Students

2nd Place

Aeesha Mulani - GEARSEF

SR-200-0171 - Effect of Saffron and Curcumin on Age-Based Behavioral Patterns in *Drosophila melanogaster*

1st Place

Audrey Guo - CARSEF

SR-200-0072 - Child Opportunity Index on Sleep Health Factors and Social Jetlag of High School Students in Alabama

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## 0300 Cell, Molecular, Microbiology & Biochemistry

3rd Place

Janaia Vanterpool - NARSEF

SR-300-0121 - The Impact of Popular Skincare Products on Staphylococcus  
Collagenases/Proteases: Part 3

2nd Place

Yujin Bong, Jatin Banna - GEARSEF

SR-300-0175-T - Investigating the Novel Oncogenic Potential of Colibactin-Producing Escherichia  
coli in Breast Tumorigenesis

1st Place

Jun Kim, David Bong - GEARSEF

SR-300-0174-T - Growth Environment Shapes Antifungal Drug Responses in Candida auris

## 0400 Chemistry and Materials Science

3rd Place

Gabrielle Saffold - GEARSEF

SR-400-0178 - Enhancing Composite Resin for Durable Tooth Restoration

2nd Place

Kaylee Oh - GEARSEF

SR-400-0177 - The Influence of KOH-Activated Lignin-Derived Carbon on Methyl Orange

1st Place

Sophia Guo - CARSEF

SR-400-0055 - Developing Sustainable Glycerol-Based Monomers for Polymer Blends Using 3D  
Printing

## 0500 Engineering

3rd Place

Jessica Shu - GEARSEF

SR-500-0179 - ThermalPvpils: A Passive Power-Saving Artificial-Intelligence Driven Shell that Makes  
your Building Cooler in Summer and Warmer in Winter

2nd Place

Corbin Hawkes - NARSEF

SR-500-0127 - A Low-Cost, LiDAR-based Car Collision Avoidance Solution

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1st Place

Mia Hall, Michael Mazur - CARSEF

SR-500-0036-T - Parametric Evaluation of a Deployable Kresling Origami Lattice Structure for Enhanced Automotive Crashworthiness

## 0600 Energy

3rd Place

Andrew Zhang - GEARSEF

SR-600-0182 - Facile Microwave Nanomanufacturing of Novel Graphene Based Catalyst for High Performance, Low-Cost Hydrogen Evolution Reaction

2nd Place

Ayesha Izhar - CARSEF

SR-600-0043 - Efficient, or Just Expensive

1st Place

Jackson Odom - CARSEF

SR-600-0047 - The Effect of Fiber Orientation on HDPE Composites Reinforced by Vinyl Ester Rebar

## 0700 Earth and Environmental Sciences & Environmental Engineering

3rd Place

Maddie Lee - GEARSEF

SR-700-0186 - Terrestrial Impacts of Fertilizer Runoff on Soil Rhizosphere Acidity and Microbial Diversity

2nd Place

Anushka Behara - CARSEF

SR-700-0064 - Epigenetic Memory of Environmental Pollution: Long-Term Effects of Urban Toxicants on Planarian Regeneration

1st Place

Saisha Sahoo - CARSEF

SR-700-0063 - Examining the Phytoremediation Potential of *Pontederia cordata* for Lithium, Cobalt, and Lead

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## 0800 Biomedical Engineering & Biomedical and Health Sciences

3rd Place

Mira Menon - GEARSEF

SR-800-0189 - Identifying Seizure Onset Zones Using Time-Frequency and Entropy-Based EEG Biomarkers

2nd Place

Alexis Saffold - GEARSEF

SR-800-0188 - Using Arduino-based Components To Analyze Biomechanical Forces Against Qualitative Feedback

1st Place

Danielle George - CARSEF

SR-800-0069 - Exploring Tampon-Derived Vaginal Fluids for Early Detection of Endometrial Cancer via Biomarker Analysis

## 0900 Physics, Astronomy & Mathematics

3rd Place

Leland Barbour - NARSEF

SR-900-0133 - Rocket Plume Exhaust Effects During Mars Ascent

2nd Place

Ella Watkins - CARSEF

SR-900-0049 - Humidity's Greater Effect on the Photodegradation of Prismacolor Colored Pencils on Bristol Vellum Paper

1st Place

Greeshma Vinoy - CARSEF

SR-900-0204 - Fabrication of Laser-induced Carbon-based Interdigitated Electrodes for Vitamin B12 Sensing

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## 1100 Robotic Systems & Communication Technology

3rd Place

Liam Felio, Dylan Chavez - GEARSEF

SR-1100-0193-T - How can machine learning be used to identify different types of water contamination from photos of water-testing strips

2nd Place

Gabriel Stutheit, Michael Birkhead - GEARSEF

SR-1100-0194-T - Animal Go!

1st Place

Sungbin Park - GEARSEF

SR-1100-0192 - The Effect of Prompt Engineering on Accuracy and Consistency in Financial News Sentiment Classification Using Large Language Models

## 1200 Computational and Bioinformatics Sciences

3rd Place

Walter Anderson, Parker Madden - CARSEF

SR-1200-0050-T - Magic: The Gathering Price Prediction Model

2nd Place

Hudhayfah Rasheed, Yusuf Nabi - CARSEF

SR-1200-0051-T - Mind Control: Using brain waves to control robotic objects might be the future of assistive technologies

1st Place

Arnav Aggarwal - GEARSEF

SR-1200-0195 - AI/ML-driven systems-level analysis identifies CEACAM1 as a neuroinflammatory metabolic signaling vulnerability in Parkinson's disease