

2022 Awards MOBILE REGIONAL SCIENCE and ENGINEERING FAIR



University of South Alabama - Jag Gym March 11, 2022

SENIOR DIVISION

Biomedical Engineering & Bioinformatics

1st Place: Kenneth Womble, Alabama School of Math and Science: "A Comparative Analysis of Three Eukaryotic Motor Proteins' Evolutionary Histories Obtained Through the use of Bioinformatics Tools"

Cellular/Molecular Biology/Microbiology

1st Place: Dev Mahta, Davidson High School: "Bacillus cereus Spores Cause Increased Adherence to Radiation Therapy Thermoplastic Immobilization Mask Material"

Chemistry

1st Place: Louisa Forbes, Davidson High School:

"Do differing wasted animal fats and cooking oils differ in their saponification value and therefore densities of their transesterified fatty acid methyl esters?"

Engineering: Mechanics

1st Place: Nicholas Kim, Alabama School of Math and Science: "3-D Printed Origami Precreaser"

Environmental Engineering

1st Place: Dakota Perry, Davidson High School: "A Mechanism Utilizing Renewable Energy for Eliminating Aquatic Trash in Waterways that does not Contribute to Global Warming and Air Pollution."

Materials Science

1st Place: Sanjana Mupparaju, Alabama School of Math and Science: "Synthesis Methods of 2-D Tin Sulfide Nanomaterials"

Mathematics

1st Place: Jacob Kim, Alabama School of Math and Science: "Properties of Stieltjes-Rogers Polynomials and Random Polynomials"

Physics & Astronomy

1st Place: Elbread Roh, Alabama School of Math and Science: "Long Term X-Ray Flux Solar Flare Intensity Prediction Using Machine Learning"

Moore Statistical Award

1st Place: Dev Mahta, Davidson High School: "Bacillus cereus Spores Cause Increased Adherence to Radiation Therapy Thermoplastic Immobilization Mask Material" (Cellular/Molecular Biology/Microbiology) Received \$100 Gift card to the USA Bookstore

2nd Place: Louisa Forbes, Davidson High School:

"Do differing wasted animal fats and cooking oils differ in their saponification value and therefore densities of their transesterified fatty acid methyl esters?" (Chemistry) Received \$50 Gift card to the USA Bookstore

> 3rd Place: Sanjana Mupparaju, Alabama School of Math and Science: "Synthesis Methods of 2-D Tin Sulfide Nanomaterials" (Materials Science) Received \$25 Gift card to the USA Bookstore

Best-In-Show Awards

1st Place: Sanjana Mupparaju, Alabama School of Math and Science: "Synthesis Methods of 2-D Tin Sulfide Nanomaterials" (Materials Science) Funding to attend the International Science & Engineering Fair: \$1200.00

2nd Place: Dakota Perry, Davidson High School:

"A Mechanism Utilizing Renewable Energy for Eliminating Aquatic Trash in Waterways that does not Contribute to Global Warming and Air Pollution." (Environmental Engineering) Funding to attend the International Science & Engineering Fair: \$1200.00

Runners Up for Best-In-Show

Nicholas Kim, Alabama School of Math and Science: "3-D Printed Origami Precreaser" (Engineering: Mechanics) Received \$50 Gift card to the USA Bookstore

Louisa Forbes, Davidson High School:

"Do differing wasted animal fats and cooking oils differ in their saponification value and therefore densities of their transesterified fatty acid methyl esters?" (Chemistry) Received \$50 Gift card to the USA Bookstore

BEST IN FAIR

To be announced

Community Innovation Award Winner

To be announced