

Team Minnesota Awards at 2018 Intel ISEF

BIOMEDICAL AND HEALTH SCIENCES

Fourth Award of \$500

BMED027 — *More than Skin Deep: Deciphering the Role of Bartonella henselae Infection in Melanoma Metastasis, (Phase Two)* - Cole Maxwell, Breck School, MN, United States of America

BIOMEDICAL ENGINEERING

First Award of \$3,000

ENBM014 — 3D Printable Prosthetic Foot - Everett Kroll, Stillwater Area High School, MN, United States of America

ENGINEERING MECHANICS

Fourth Award of \$500

ENMC004 — Measuring the Sound Intensity and Reflection Coefficients of Materials Inside an Acoustically Designed Classroom (Choir Room), Assisted by a Custom Impedance Apparatus and Modeled by Two and Three Dimensional Models - Abigail Smith, Cloquet Senior High School, MN, United States of America

ROBOTICS AND INTELLIGENT MACHINES

Fourth Award of \$500

ROBO059 — Development of Autonomous Unmanned Aerial Systems for Semi-Dense Point Cloud Generation in Disaster Scenarios - Parthiv Krishna, Minnetonka High School, MN, United States of America

American Psychological Association

Certificate of Honorable Mention

BEHA051T — Unplugged: Quantifying the Effects of Technology on Adolescent Sleep and Mood
Louise Aehyun Hostrup Kim, Breck School, Golden Valley, MN, United States of America
Spencer Lee Yueh, Breck School, Edina, MN, United States of America

Arizona State University

Arizona State University is pleased to offer a comprehensive scholarship combining a monetary award and an environment focusing on knowledge, learning and research. The New American University Intel ISEF Scholarship is renewable for four years, individuals and teams will be considered for these awards.

Intel ISEF Scholarship

MCRO052T — UT-WHY? Effects of Household Beverages on UTI Causing Bacteria
Audrey J. Swanson, Perham High School, Perham, MN, United States of America
Sierra Dawn Edvall, Perham High School, Frazee, MN, United States of America

International Council on Systems Engineering - INCOSE

The International Council on Systems Engineering (INCOSE) is a not-for-profit membership organization founded to develop and disseminate the interdisciplinary principles and practices that enable the realization of successful systems. The INCOSE Best Use of Systems Engineering award is awarded to the best interdisciplinary project that can produce technologically appropriate solutions that meet societal needs. The INCOSE Special Systems Engineering Prosthesis award is awarded to the best use of Systems Engineering process used in the development of prosthesis

Second award of \$500

ENBM014 — 3D Printable Prosthetic Foot
Everett Adien Jeffrey Kroll, Stillwater Area High School, Woodbury, MN, United States of America

National Anti-Vivisection Society

Since 1929, the National Anti-Vivisection Society has promoted greater compassion, respect and justice for animals. NAVS educational and advocacy programs advance better, more humane science; support the development of alternatives to the use of animals in research, testing and education; and effect changes which help to end the unnecessary suffering of animals.

Second Award of \$5,000

ENBM023T — Holding Your Heart in Your Hand: 3D-Printing a Mechanically Accurate Aortic Valve Model
Alexander Richard Anderson, Breck School, Wayzata, MN, United States of America
Siyuan Ma, Breck School, New Brighton, MN, United States of America

Oracle Academy

Oracle Academy, is the flagship program under Oracle's corporate social responsibility education pillar. Its mission is to advance computer science education and make it accessible to students globally to drive knowledge, innovation, skills development, and diversity in technology fields. In 2013, Oracle Academy supported more than 2.5 million secondary and post-secondary students globally, providing software, curriculum, professional development, and other resources with an in-kind grant value of more than US\$2.7 billion.

Award of \$5,000 for outstanding project in the systems software category

SOFT011 — Implementing Deep Learning Techniques to Detect Abnormal Cells
Gaurav Kumar Behera, Century High School, Rochester, MN, United States of America

Air Force Research Laboratory on behalf of the United States Air Force

The Air Force Research Laboratory is a global technical enterprise, boasting some of the best and brightest leaders in the world. We are Revolutionary, Relevant, and Responsive to the Warfighter. We defend America by unleashing the unconquerable power of scientific and technical innovation. Our mission is leading the discovery, development, and integration of affordable warfighting technologies for our air, space, and cyberspace force.

Winners will also receive an engraved glass trophy.

First Award of \$750 in each Intel ISEF Category

ROBO023T — CARL: A Convolutional Neural Network Powered Self-Driving Car
Daniel Ellis, Saint Paul Academy and Summit School, Saint Paul, MN, United States of America
Michael Raymond Hall, Saint Paul Academy and Summit School, Sunfish Lake, MN, United States of America

Thermo Fisher Scientific

Thermo Fisher Scientific is the world leader in serving science, enabling their customers to make the world healthier, cleaner and safer.

Thermo Fisher 4i Values Award: Integrity, Intensity, Innovation & Involvement

ENBM008 — Anaphylactic Shocker: The Use of a Dynamic QR Code Medical Bracelet and Connected Bluetooth Carrying Case to Locate and Administer a Practice Epinephrine Auto-Injector During a Staged Medical Emergency

Katelyn Jo France, Hinckley-Finlayson High School, Sandstone, MN, United States of America

Wolfram Research, offers Mathematicia software to all finalists and observers (about 2,000 students total) for free.

All Finalists (31 in Minnesota) won an all expense paid trip to compete at the 2018 Intel International Science and Engineering Fair in Pittsburgh. They each won their finalist medal and certificate.