INTEL INTERNATIONAL SCIENCE AND ENGINEERING FAIR

A program of Society for Science & the Public

Young Innovators Win Top Honors at Intel ISEF 2011

On May 13, Intel Corporation and the Society for Science & the Public celebrated award winners at Intel ISEF 2011. Matthew Feddersen and Blake Marggraff, a team from California, received top honors with the Gordon E. Moore Award and a USD 75,000 prize. Another team, consisting of Pornwasu Pongtheerawan, Tanpitcha Phongchaipaiboon and Arada Sungkanit, from Thailand, and an individual, Taylor Wilson, from Nevada, were honored with Intel Foundation Young Scientist Awards and USD 50,000 prizes.

In addition, more than 500 Intel ISEF competitors received scholarships and prizes for innovative research presented at the competition. This included 17 "Best of Category" winners, as well as grants to the winners' schools and their Intel ISEF-affiliated fairs.

Intel ISEF awards included more than USD 4 million in scholarships and prizes.

Gordon E. Moore Award Winners

Matthew Fedderson, 17, and Blake Marggraff, 18, of Lafayette, California, were awarded highest honors with the Gordon E. Moore Award for their research on treating simulated cancer cells with Compton scattering-produced secondary radiation. This research could offer a safer, more effective and less expensive method of radiation therapy for cancer treatment. This is the first time a team has received this award, including USD 75,000 in scholarship funds.

Intel Foundation Young Scientist Award Winners

Other top honors went to a team from Thailand and a student from Nevada when they were selected as Intel Foundation Young Scientist Award winners. This prize included USD 50,000 in scholarship funds for each of the winning projects.

Pornwasu Pongtheerawan, 16, Tanpitcha Phongchaipaiboon, 17, and Arada Sungkanit, 17, a team from the Meung district in Thailand, were honored for their development of bio-based packaging plastics made from fish scales. By extracting biopolymers from the scales, the team was able to create an effective, low-cost eco-plastic for potential use in food packaging, which could reduce reliance on petroleum-based products.

Taylor Wilson, 17, of Reno, Nevada, was honored for research on novel techniques for detecting nuclear threats, including active and passive approaches which complement each other. In short, Wilson developed an environmentally friendly, cost-effective, and highly sensitive system capable of detecting small quantities of nuclear material. This system could be used as a portal monitor to scan cargo containers.

Watch videos covering a range of INTEL ISEF Projects

Students Investigate Alternative Energy Solutions at Intel ISEF 2011

Finalists share research on more effective wind turbines, solar cells and biofuels.

Curiosity Drives Innovative Projects at Intel ISEF 2011

Innate curiosity drives students to find answers in the world around them.

The Experience of Intel ISEF 2011

The world's biggest pre-college science fair inspires young innovators to pursue careers in science.

Students at Intel ISEF 2011 Probe Solutions on a Global Scale

Young innovators at the world's biggest pre-college science fair will be the problem-solvers of the future.

Meet some of the young innovators at Intel ISEF 2011

Bryce Reitano, USA

Reitano developed a humanoid robot which can be controlled via the operator's own body movements.

Juan Acosta, USA

Acosta designed a robotic hand able to be controlled via facial movements and conscious thought.

Aseem Mishra, UK

Mishra created "drum trousers" a pair of pants incorporating a virtual drum set which can be played by slapping various locations on the trouser legs.

Marian Bechtel, USA

Bechtel designed a safe, inexpensive method for locating landmines using a seismic-acoustic detector.

Lai Xue, China

Xue developed an augmented reality system via goggles that can superimpose interactive, holographic imagery on the real world.

Yulim Kim, South Korea

Kim developed an effective violin tuner using a microphone attached to a stroboscope.

Sara Ahmad El Mustapha, Lebanon

El Mustapha created a diaper sensor that notifies caregivers when an infant needs changing.

Tiana Woods, USA

Woods researched two insulin receptors in the kidneys of mice to better understand the basis of diabetes and further the search for a cure.