

Contact:

Lauren Espin
Siemens Foundation
732-590-2182
lauren.espin@siemens.com

Joseph Giumarra
Dentsu Communications
201-741-8293
joe.giumarra@dcinyc.com

**RESEARCH ON MATHEMATICS AND GAIT ANALYSIS BRINGS
GEORGIA AND TENNESSEE STUDENTS CLOSER TO
NATION'S HIGHEST SCIENCE HONOR FOR HIGH SCHOOL STUDENTS**

**WINNERS OF SIEMENS COMPETITION IN MATH, SCIENCE & TECHNOLOGY
REGIONAL FINALS AT GEORGIA INSTITUTE OF TECHNOLOGY REVEALED**

**Sitan Chen of Suwanee, Georgia, Wins Top Individual Prize;
Ziyuan Liu and Cassee Cain of Oak Ridge, Tennessee, Win Top Team Prize**

ATLANTA, GEORGIA, November 5, 2011 — The shortlist of contenders for the the highest science honor awarded to American high school students narrowed tonight as the winners of the Siemens Competition in Math, Science & Technology Region 6 Finals were announced. Mathematics research that could advance how computers multi-task data earned top honors and the \$3,000 Individual scholarship for Sitan (Stan) Chen of Suwanee, Georgia. Research in the rapidly developing field of gait analysis for prosthetics and orthotics won the \$6,000 Team scholarship for Ziyuan Liu and Cassee Cain of Oak Ridge, Tennessee.

The students presented their research this weekend to a panel of judges from Georgia Institute of Technology, host of the Region 6 Finals. They are now invited to advance to the National Finals in Washington, DC, December 2-5, 2011, where \$500,000 in scholarships will be awarded, including two top prizes of \$100,000. The Siemens Competition, a signature program of the Siemens Foundation, is administered by the College Board.

“The Siemens Competition has a proud history of attracting awe-inspiring research projects from America’s best and brightest and we are pleased to see that this year is no exception,” said Jeniffer Harper-Taylor, President of the Siemens Foundation. “We can all take heart in the remarkable work being done by this next generation of young innovators as exemplified by Sitan Chen, Ziyuan Liu and Cassee Cain.”

The Winning Individual

Sitan (Stan) Chen, a senior at Northview High School in Duluth, Georgia, won the individual category and a \$3,000 college scholarship for his mathematics project, *On the Rank Number of Grid Graphs*, which may result in a new method of studying graphs.

“Mr. Chen presented a graduate level type of study that addresses a prominent topic in mathematics today,” said judge, Dr. Eva K. Lee, Professor, Industrial and Systems Engineering, Georgia Institute of Technology. “His results offer important applications of parallel algorithm design which can advance how computers multi-task data across platforms. Mr. Chen’s research impacts all electronics including computers, mobile phones, and digital circuit appliances.”

A national finalist in the 2010 Siemens Competition, Stan is also an accomplished musician, having been invited to Carnegie Hall six times to perform on the piano and violin. Stan is on his school fencing team and organizes benefit concerts to raise funds for disaster relief. He hopes to become a university professor. His mentor on the project was Jesse Geneson, Massachusetts Institute of Technology.

The Winning Team

Ziyuan Liu and Cassee Cain, seniors at Oak Ridge High School in Oak Ridge, Tennessee, won the team category and will share a \$6,000 scholarship for their bioengineering project, *Using Kinect for Xbox 360 and Computer Vision to Analyze Human Gait*, which may aid the development of an accurate, affordable device to detect abnormal gait patterns.

“Mr. Liu and Ms. Cain explored a relatively new area of gait analysis by co-opting an existing commercial device, the Kinect for Xbox 360, and creating custom software,” said Dr. Young-Hui Chang, Associate Professor, Applied Physiology, Georgia Institute of Technology. “In the rapidly developing field of gait analysis in prosthetics and orthotics, their project opens avenues to bring personalized rehabilitation to the home. This could potentially reduce medical costs, allowing clinicians to monitor a patient’s progress from a remote site.”

Born in Qujing, Yunnan, China, Ziyuan dreams of becoming the head of a software company or a banking firm. He is the founder of a committee to educate others in his school and community about solar energy. A member of the International Relations Club and French National Honor Society, he enjoys playing the alto saxophone and swimming.

Cassee is the drum major of her high school marching band and the costume designer of the drama club. She has always been interested in health care and dreams of becoming an oncologist. A National Honor Society National Achiever, Cassee plans to major in chemical engineering. The team’s mentors on the project were Dr. John K. Mueller and Dr. Boyd McCutchen Evans III, Oak Ridge National Laboratory.

Regional Finalists

The remaining regional finalists each received a \$1,000 scholarship. Regional Finalists in the Individual category were:

- Jaya Janadhyala, Gwinnett School of Mathematics, Science, and Technology, Lawrenceville, Georgia
- Alina Li, Paideia School, Atlanta, Georgia
- Luo Qian, Thomas Jefferson High School for Science and Technology, Alexandria, Virginia
- Ellora Sarkar, Miami Palmetto Senior High School, Pincrest, Florida

Team Regional Finalists were:

- Jyotishka Biswas and Jaron Rottman-Yang, School for Science and Math at Vanderbilt, Nashville, Tennessee

- Madison Chakoumakos and Zibo Zhuang, Oak Ridge High School, Oak Ridge, Tennessee
- Aakash Indurkha and Peter Fan, North Carolina School of Science and Mathematics, Durham, North Carolina
- Ye Tao and Marvin Qian, Thomas Jefferson High School for Science and Technology, Alexandria, Virginia

The Siemens Competition

Launched in 1998, the Siemens Competition is the nation's premier science research competition for high school students. An all-time record of 2,436 students registered to enter the Siemens Competition this year for an unprecedented 1,541 projects submitted. 317 students were named semifinalists and 96 were named regional finalists, representing 45 states. Entries are judged at the regional level by esteemed scientists at six leading research universities which host the regional competitions: California Institute of Technology, Carnegie Mellon University, Georgia Institute of Technology, Massachusetts Institute of Technology, University of Notre Dame and The University of Texas at Austin.

Follow the Siemens Foundation on Twitter (www.twitter.com/sfoundation) and Facebook (www.facebook.com/SiemensFoundation) to learn about the remarkable research being done by this year's brilliant Siemens Scholars. Then visit www.siemens-foundation.org at 9:30am EST on December 5 for a live webcast of the National Finalist Awards Presentation.

The Siemens Foundation

The Siemens Foundation provides more than \$7 million annually in support of educational initiatives in the areas of science, technology, engineering and mathematics (STEM) in the United States. Its signature programs include the Siemens Competition in Math, Science & Technology, Siemens Awards for Advanced Placement, and The Siemens We Can Change the World Challenge, which encourages K-12 students to develop innovative green solutions for environmental issues. By supporting outstanding students today, and recognizing the teachers and schools that inspire their excellence, the Foundation helps nurture tomorrow's scientists and engineers. The Foundation's mission is based on the culture of innovation, research and educational support that is the hallmark of Siemens' U.S. companies and its parent company, Siemens AG. For more information, visit www.siemens-foundation.org.

The College Board

The College Board is a mission-driven not-for-profit organization that connects students to college success and opportunity. Founded in 1900, the College Board was created to expand access to higher education. Today, the membership association is made up of more than 5,900 of the world's leading educational institutions and is dedicated to promoting excellence and equity in education. Each year, the College Board helps more than seven million students prepare for a successful transition to college through programs and services in college readiness and college success — including the SAT[®] and the Advanced Placement Program[®]. The organization also serves the education community through research and advocacy on behalf of students, educators and schools. For further information, visit www.collegeboard.org.

Video and photos of winners available on request.

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