



58th Annual Greenville County and South Carolina Regional Science and Engineering Fair 2012

Title Sponsor: Rotary Club of Greenville

Roper Mountain Science Center & The SC Academy of Science
Fair—March 27th; Public Exhibition—March 28th - Carolina First Center
Awards—April 10th – Roper Mountain Science Center

THE CHARLES H. TOWNES STUDENT RESEARCH AWARD *Recognizing Academic Excellence in Research by a High School Student*

GREGORY WILSON

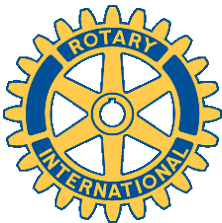
Riverside High School

Senior High School Overall Awards

- First Place:** **Gregory Wilson**, Riverside High School, Teacher: Karen Becker
“Look Ma, No Hands: A Study of Control Systems for Autonomous Vehicles”
\$60 Visa Gift Card, Trophy & Certificate, \$60 Visa Gift Card to teacher
- Second Place:** **Zachary Morgan**, Greenville Tech Charter High School, Teacher: Jason Schmidt
“The Search for Natural Products with Mucilaginous Properties for the Protection of Gastric Tissue”
\$50 Visa Gift Card, Trophy & Certificate, \$50 Visa Gift Card to teacher
- Third Place:** **Richard Li**, Southside High School, Teacher: Tom Rogers
“How is the Speed and Reliability of an Ad-Hoc Network Influenced by Proximity?”
Award: \$40 Visa Gift Card, Trophy & Certificate, \$40 Visa Gift Card to teacher
- Fourth Place:** **Deepti Athvale**, Southside High School, Teacher: Tom Rogers
“Reaction Times of Central vs. Peripheral Vision”
Award: \$30 Visa Gift Card, Trophy & Certificate, \$30 Visa Gift card to teacher

Special Thanks to our 2012 Sponsors

Title Sponsor
Rotary Club of Greenville



Diamond (\$2500+)
3M

Gold (\$500 - \$999)
Lockheed Martin

South Carolina Society of Professional Engineers

Silver (\$300 – \$499)
American Society of Heating, Air Conditioning & Refrigeration Engineers

Bronze (\$100 - \$299)
American Institute of Chemical Engineers – Western Carolina

Darrell & Georgia Harrison

Greenville County Soil & Water Conservation District

Category Winners

First Place: \$25 Visa Gift Card, Medal & Certificate, Teacher - \$25 Visa Gift Card, **Second Place:** \$20 Visa Gift Card & Certificate; **Third Place:** \$15 Visa Gift Card & Certificate; **Fourth Place:** \$10 Visa Gift Card & Certificate; **Honorable Mention:** Certificate

Biological Sciences

- First Place** **Zachary Morgan, Greenville Tech Charter High School**, Teacher: Jason Schmidt
"The Search for Natural Products with Mucilaginous Properties for the Protection of Gastric Tissue"
- Second Place** **Deepti Athvale, Southside High School**
"Reaction Times of Central vs. Peripheral Vision"
- Third Place** **Omar Abdeladl, Greenville Tech Charter High School**
"A Backpack Adjustment A Day Keeps the Doctor Away"
- Fourth Place** **Nida Ansari, Riverside High School**
"What Effects Do Various Distraction Noises Have on an Adolescent's Ability to Complete an IQ Test?"
- Honorable Mention** **David Wilson, Greenville Tech Charter High School**
"Food Habits of American Cockroaches"
- Honorable Mention** **Eric Rohm, Greenville Tech Charter High School**
"Testing for Caffeine"

Environmental Science

- First Place** **Mohit Gandhi, Southside High School**, Teacher: Tom Rogers
"The Effects of Ferrofluid on Freshwater Algae"
- Second Place** **Shelby Stuff, Greenville Tech Charter High School**
"The Effect of Sunlight Angle on a Brick Water Heater & Comparison with Solar Water Heating and Compost Water Heating"
- Third Place** **Elizabeth Grabowski & Rileigh Wagner, J.L. Mann Academy**
"Thriving Indoors"
- Fourth Place** **Colin Rodwell, Greenville Tech Charter High School**
"Cell Phone Radiation"

Math & Computer Science

- First Place** **Richard Li, Southside High School**, Teacher: Tom Rogers
"How is the Speed and Reliability of an Ad-Hoc Network Influenced by Proximity?"
- Second Place** **Brendan Williams, Southside High School**
"Generating a Sonar Effect on a Cell Phone"
- Third Place** **Stephan Williams, Southside High School**
"Characterizing Vibrations Using Android Phones"
- Fourth Place** **Brenden Raulerson, Southside High School**
"Evaluation of Sensor Accuracy on the Success of Machine Learning in Autonomous Vehicles"
- Honorable Mention** **Henry Noonan, Southside High School**
"Evaluation of Android Phones as Research and Education Tools for Sound Analysis"

Physics & Engineering

- First Place** **Gregory Wilson, Riverside High School**, Teacher: Karen Becker
"Look Ma, No Hands: A Study of Control Systems for Autonomous Vehicles"
- Second Place** **Rebeca Dominguez & Claire Pillsbury, Southside High School**
"Underwater Mask Using Electrolysis"
- Third Place** **Thomas Neff, Riverside High School**
"Environmental Experiment of the Resonance of Different Materials When Used as Soundboards"
- Fourth Place** **Emily Hudson, Southside High School**
"A Physical Model of Ear Canal Stenosis: The Effect of Diameter on Sound Transmission"
- Honorable Mention** **Sai Bikkani, Karthik Chandrasekar & Michael Wang, Southside High School**
"The Comparative Analysis of the Effectiveness of Ultra-Capacitors vs. that of Batteries"

Senior Division Special Awards

American Institute of Chemical Engineers - \$50 to Individual; \$25 to each Team Member & Certificate

Mohit Gandhi, Southside High School, *"The Effects of Ferrofluids on Freshwater Algae"*

Rebeca Dominguez & Claire Pillsbury, Southside High School, *"Underwater Mask Using Electrolysis"*

American Society of Heating, Refrigerating & Air Conditioning Engineers (ASHRAE) - \$50 & Certificate

Omar Abdeladl, Greenville Tech Charter High School, *"A Backpack Adjustment A Day Keeps the Doctor Away"*

Dr. Tom Goldsmith Electrical Engineering Award - \$50 & Certificate

Richard Li, Southside High School, *"How is the Speed and Reliability of an Ad-Hoc Network Influenced by Proximity?"*

Greenville County Science Teachers Association Aspiring Scientists Award -

\$25 to each Team Member & Certificate

Sai Bikkani, Karthik Chandrasekar & Michael Wang, Southside High School, *"The Comparative Analysis of the Effectiveness of Ultra-Capacitors vs. that of Batteries"*

Lander University Communications Award - \$25, Prize Bag & Certificate

Brendan Williams, Southside High School, *"Generating a Sonar Effect on a Cell Phone"*

Roper Mountain Science Center Team Spirit Award - \$25 to each Team Member & Certificate

Elizabeth Grabowski & Rileigh Wagner, J.L. Mann Academy, *"Thriving Indoors"*

Sierra Club - \$50 & Certificate

Mohit Gandhi, Southside High School, *"The Effects of Ferrofluids on Freshwater Algae"*

S.C. American Water Works Association Excellence in Water Award- \$75 Award (mailed) & Certificate

Mohit Gandhi, Southside High School, *"The Effects of Ferrofluids on Freshwater Algae"*

South Carolina Society of Professional Engineers - \$100 Savings Bond (mailed) & Certificate

Gregory Wilson, Riverside High School, *"Look Ma, No Hands: A Study of Control Systems for Autonomous Vehicles"*

U.S. Air Force - Prize Package & Certificate

Gregory Wilson, Riverside High School, *"Look Ma, No Hands: A Study of Control Systems for Autonomous Vehicles"*

Deepti Athvale, Southside High School, *"Reaction Times of Central vs. Peripheral Vision"*

Charles Ellis & Austin Porter, Porter Home School, *"Picking Up Drag: Improving the Aerodynamics of Pickup Trucks"*

U.S. Navy - Medal & Certificate

Zachary Morgan, Greenville Tech Charter High School, *"The Search for Natural Products with Mucilaginous Properties for the Protection of Gastric Tissue"*

Colin Rodwell, Greenville Tech Charter High School, *"Cell Phone Radiation"*

Morgan Miles & Kelly Simmons, Greenville Tech Charter High School, *"Sugar vs. Splenda"*