



Career Academies
of the Wake County Public School System



Southeast Raleigh Magnet

Engineering Career Academy Newsletter

VOLUME 2, ISSUE 3

MAY 2015

SPECIAL POINTS OF INTEREST

- Coordinator Note
- Spring 2015 Update
- Engineering Advisory Board
- Important Dates
- Field Trips, Job Shadowing, Internships
- Lenovo Day
- Celebrating our graduates

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The End is ~~Near~~ Here!!

From the Desk of the Coordinator:

This issue is chock full of photos from field trips, outreach programs, our senior banquet and Lenovo Day. This semester was so busy. As I put together this newsletter I am wondering if it would be better to put out four smaller issues or one big issue. I am also wondering if a parent volunteer would be much better at desktop publishing than I. :)

In March we had to say goodbye to Mrs. Varahala as she wanted to move closer to her family in Kentucky because she and her husband are growing their own family. She will be truly missed as she was not only an academy coordinator but a friend to many students and a valuable knowledge base for the administration. Fortunately we have hired someone who will fill her shoes very well. Please come by some time and meet Mrs. Monnie Sutton. She will be the BioTech and IT Academy coordinator. As a former Career Development Coordinator she brings experience in monitoring student success. She started at the beginning of April and has jumped right in with getting to know the students and handling a plethora of issues.



We are only one week away from the end of another great school year and graduation. We will have 17 senior academy students graduating in our 3rd class. This is an exciting time for them as some will be continuing their education at a 2 year or 4 year college and one will enlist in the military. I would be remiss if I let them go without some words of wisdom.



The road of life has many forks, so choose wisely.
Treat people as you would want to be treated.
Live in the moment (your phone is not an extension of your body)
Don't complain, be a problem solver.

Do you shop at Amazon.com?

If so, Amazon will give the Engineering Academy money.

Amazon Smile is the part of their organization that donates a percentage of sales to tax exempt businesses.

We will get .5% of sales on SmileAmazon.com when you use this site:

<https://smile.amazon.com/ch/46-0953611>

Important Dates:

- DOT Field Trip - 4/5/15
- Harris Nuclear Field Trip - 4/12/15
- Academy Senior Banquet - 4/14/15 - 6pm
- EDD Presentations - 4/18/15 & 4/19/15 6pm
- CTE Final Exams - 4/21/15 & 4/22/15
- Memorial Day Holiday - 4/25/15
- GRADUATION - 4/29/15 4pm

Spring 2015 - Activities

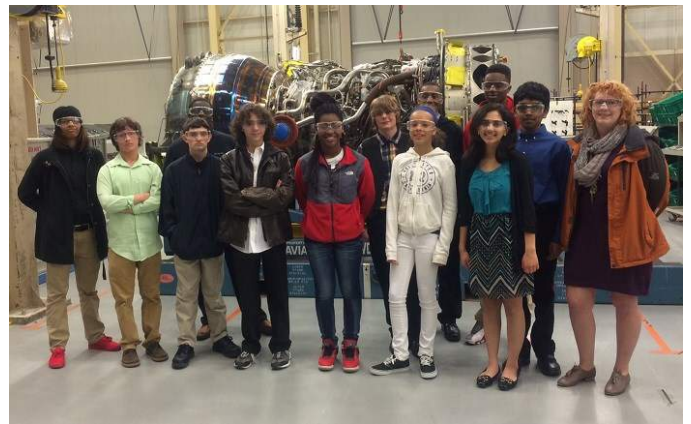
GE Aviation—Aircraft Engine Assemble Plant in the RTP.



This semester's IED classes took a field trip to GE Aviation. On February 10th Mr. Beatty's IED class then on March 25th Mrs. Laing's IED class

The students started with an open forum in a meeting room with GE employees. There were engineers, technicians and supervisors. Our students learned that GE Aviation is not your typical assembly line, they use teaming or self-directed work structure to assemble their engines. This is very similar to our

student's New Tech classes where they work in teams and everyone is responsible for everything. They also toured the facility where they assemble the largest commercial jet turbine engine. We weren't allowed to take pictures but the tour guides took this one of us in front of the GE90 Engine.



FIRST Robotics NC Regional - March 20th and 21st the FIRST robotics team competed in the North Carolina Regional Competition. Many of the FIRST team members are in the Engineering Academy. Although they didn't place, they did learn a lot and have fun.

Team members Giani Absillis and Robert Kempin pose with their robot and with former SRMHS students, now mentors Ryan Edwards and Charlie Detelich.

Driver - Jack Gelmschmo - Gabriel Adamson and human player Robert Kempin are working together during the match.



FIELD TRIPS

Spring 2015 - Activities Continued

We went back to The Eaton Corporation and the Harris Nuclear Plant with this semester's students.



On April 16th Mr. Beatty's Digital Electronics class went to the Eaton Corporation.



On May 12th Mr. Eckenrod's Principles of Engineering class went to the Harris Nuclear Plant.



FIELD TRIPS

Spring 2015 - Activities Continued

On May 5th Mrs. Sutton and I took 11 students to the Department of Transportation's Career Days at the NC State Fairgrounds. The students



FIELD TRIPS

Spring 2015- Activities Continued

On March 31st and April 1st Ms. Dalton's Health Science and Biomed classes along with the Biotech Academy students visited Biogen in RTP. Biogen (Formerly Biogen Idec) - is focused on developing, marketing and manufacturing therapies for people living with serious neurological, autoimmune and hematologic disorders. Students were in a lab environment and participated in a hands on activity about genetics. They learned how to properly pipet a fluid and got to see gel electrophoresis in action.



FIELD TRIPS

Spring 2015- Activities Continued

On April 27th we took Mrs. Laing's Civil Engineering & Architecture class to two different places. At the Dempsey Water Treatment plant in Garner the students got to see how the facility cleans and distributes drinking water.



At the Constructed Facilities Laboratory on the NC State Campus students were able to watch an actual compression test of reinforced concrete.

It failed at only 800,000 lbs of force. WOW!!



Spring 2015 - Activities Continued

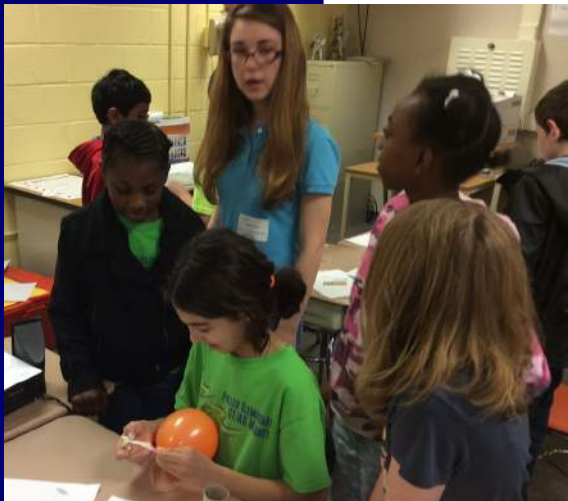
Outreach:

We went to two elementary schools and one middle school for STEM Education day.



On April 9th we went to Fuller Elementary for their STEM Day - Aislinn Schepers, Jordan Parrott and Morgan Beatty, Tony Verdicchio and Anneliese Koontz talked about careers and lead the students in an Engineering Design Challenge.

Students were given a set of supplies and were asked to design a device to transport a cargo down a fishing line stretched 25' across the classroom.



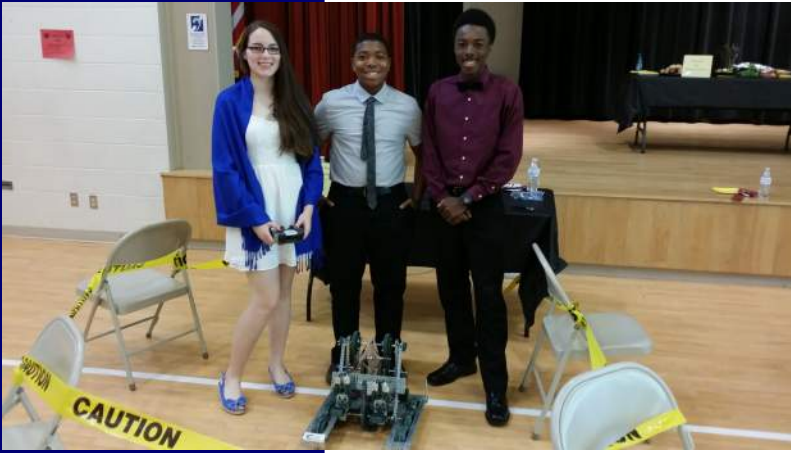
Jordan still fits in the elementary cubbies.



Spring 2015 - Activities Continued

Outreach:

April 17th only one student could join me at Ligon Middle school for STEM Career Day. Nelson Hill and I talked to 8 classes of students about Engineering Careers.



On April 24th Morgan Beatty, Akeem Blalock-Cotton and Libby Styron joined me at Walnut Creek Elementary for their STEM Career Day. The kids really liked the VEX robot that Morgan built. The Academy students talked about careers in engineering.



Spring 2015 - Lenovo Day

On April 13th over 200 Lenovo employees gave up their morning to come to our school and participate in a variety of activities. 24 of them conducted mock interviews for 60 students.

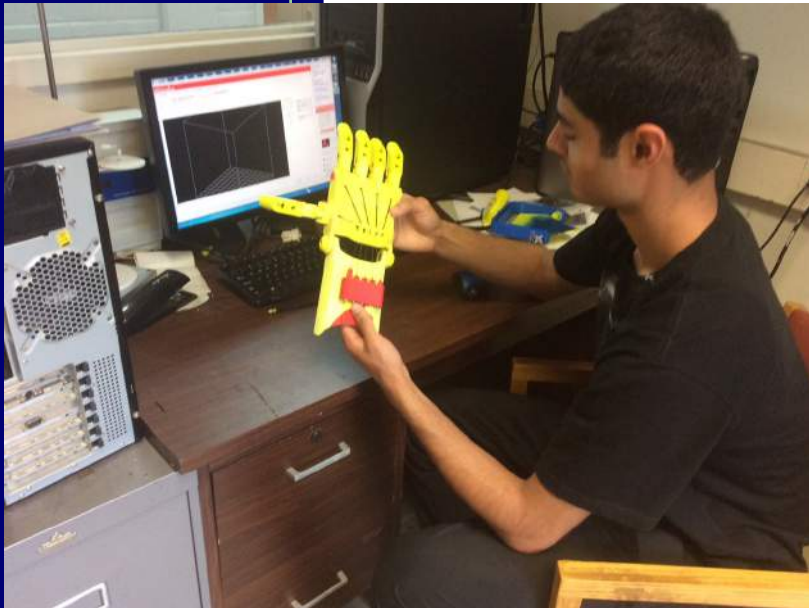


80 of the employees shared career advice to over 600 students in 40 different classrooms. 100 employees helped beautify the school by painting, mulching, planting, cleaning, organizing and installing 44 donated computers. Overall, it was a huge success.



Spring 2015 - Internships

Our seniors have completed internships at a variety of places. We had two students who completed their internships last summer at the NCSU ASSIST program (Advanced Self-Powered Systems of Integrated Sensors and Technologies). Another student did his at Schunk through the NCTAP program. Lenovo and I-Cubed provided an internship to a couple of our students.



Parth Uphadyaya worked at Duke University in their DHT lab dealing with Biomedical engineering. He created a prosthetic hand and printed it on a 3D printer.

Ryan Adams worked at the NC Department of Transportation in their planning department.



Spring 2015 - Lenovo Day Con't



SENIOR BANQUET

THANK YOU parents:

**Dotty Barco
Nancy Absillis
Desiree Smith**

Spring 2015 - Congratulations!!

On May 14th we celebrated the accomplishments of our seniors at our first annual Engineering Academy Senior Banquet. We started the tradition where the undergraduates and their families put on the banquet for the seniors. This year since it was planned only a few weeks out, we didn't have a lot of support. Fortunately Dotty Barco came through by making a delicious meal. Nancy Absillis donated and put up of all of the decorations. Desiree Palmer-Smith also donated the cake, some beverages and



helped out with setting up for the banquet. Over 50 people attended the occasion and were fortunate to hear our guest speaker, Mr. Skip Eskridge give the students great advice.



Spring 2015 - GRADUATION

Oh,
The
Places
You'll
Go

Congratulations to our Engineering Academy Graduates

Ryan Adams	N.C. State University
Terrance Adams	N.C. State University
Brian Ananaba	N.C. A&T
Jaire Andrews	N.C. A&T
Lucas Bray	East Carolina University
Adam Douglas	East Carolina University
Tyler Douglas	Wake Tech
Michael Edwards	Mercer University
Leon Hunter	N.C. A&T
Anneliese Koontz	N.C. State University
Justin Krumm	Wake Tech
Quan Le	Unites States Marine Corp
Parth Singh	Johns Hopkins University
Jaquell Taylor	North Carolina Central University
Parth Upadhyaya	N.C. State University
Tony Verdicchio	Clemson University
Julian Williams	N.C. A&T



May 29th 4pm at Memorial Auditorium

Advisory Board Update

At our last meeting we welcomed two new university representatives: Dr. Manuel Reyes from NC A&T University and Barbara Muller-Borer from East Carolina University. Since they are not local we will Skype them in to our monthly meetings.

The internship committee is continuing to work on finding companies to offer internships to our students. This is very difficult so if you have any contacts please let us know.

Our Advisory Board Summer retreat is scheduled for August 2nd. If you would like to participate just let us know as we are always looking for more parent input.

Advisory Board member selected Tarheel of the Week

If you didn't get a chance to read about Bob Malkin here is the article.

<http://www.newsobserver.com/news/local/article14406845.html>

We are very proud of him and understand how fortunate we are to have him on our advisory board.

The 2015 Valedictorian is an Engineering Academy student
(For the 3rd year in a row)

Congratulations to Parth Singh - Class of 2015 Valedictorian



Important Links and Information

Mr. Geraghty - jgeraghty@wcpss.net

Mr. Beatty - tbeatty@wcpss.net
Class Site - <http://mrbeattysclass.weebly.com/>

Mr. Eckenrod - eckenrod@wcpss.net
Class Site - <http://mreclass.weebly.com/>

Mrs. Laing - dlaing2@wcpss.net
Class Site - <http://mrslaing.weebly.com>

Follow the Engineering Academy on Twitter
[@SEengAcademy1](https://twitter.com/SEengAcademy1)

<http://southeastraleigheaab.weebly.com/>

Key for the Academy Acronyms

PLTW - Project Lead the Way

IED - Introduction to Engineering Design

POE - Principles of Engineering

DE - Digital Electronics

AE - Aerospace Engineering

CEA - Civil Engineering and Architecture

EDD - Engineering Design and Development

NAF - National Academy Foundation

CDC - Career Development Coordinator

CA - Career Academy

CDF - Career Development Facilitator



Graduate Spotlight



Mattison Hobbs - Class of 2008 Manufacturing Engineer

“I am a manufacturing engineer with solar turbines, a subsidiary of caterpillar, in San Diego. Solar makes natural gas turbines that are used to provide power to off-shore oil platforms, hospitals, universities and many other places. My main job is basically to problem solve issues that come up in the manufacturing process such as parts not fitting like they should or issues with the assembly procedures.”

“The engineering courses I took at Southeast taught me how to use a 3-D modeling program and discover how much I enjoyed it. That skill has helped me more than I could ever imagine.”

“The introduction to Engineering Design class made my college modeling class incredibly easy.”

“I was in Engineering club which gave me exposure to people in the engineering field and that interaction helped me to decide what type of engineering I was interested in studying in college.”



Solar[®] Turbines

A Caterpillar Company



Graduate Spotlight



Portia Griffiths - Class of 2010

Senior at NC A&T Mechanical Engineering

“I have had an internship at GE Transportation in 2013 and currently have a job offer with Norfolk Southern.”

“The engineering courses at Southeast helped me with my college courses and allowed me to figure out that I am a hands-on person.”

“I love exploring the process of a product being developed.”

“While at Southeast I participated in SGA, softball and the mentoring program and these experiences allowed me to not only help my peers but also connect with my peers in a different way outside of the classroom.”

