# East Carolina University. TECSCONNECTS News and Notes from the College of Technology and Computer Science

#### **TECS** NEWS

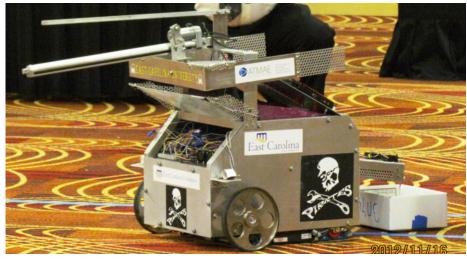
# ECU wins 2<sup>nd</sup> prize in National Robotics Competition

Students from the College of Technology and Computer Science at East Carolina University won 2nd prize at the robotics competition held at the annual conference of the Association for Technology, Management and Applied Engineering (ATMAE) held on Friday, November 17th in Nashville, TN. ATMAE is a national accreditation agency through which most programs in the Technology Systems Department are accredited. Eight teams participated in this year's competitive event, where students are given a specific task that has to be completed by their robot in 7 minutes. The robot is manually driven close to the task area, after which it has to perform the task using its own program in an autonomous manner. This vear's task was to collect 36 balls in four colors from a central table, sort them, and deposit them in bins. ECU had the second lowest time in performing this task.

The robot was built by students as a requirement for passing the Electromechanical Systems Integration class which is offered as a senior level class for the Industrial Engineering Technology (IET) program at ECU. Students in this program learn



Picture of the students participating in the event along with faculty members, Dr. T. J. Mohammed (Department Interim Chair), Mr. Jimmy Linn (Course instructor for IENG4024 Electromechanical Systems Integration) and Ms. Amy Frank (ATMAE Chapter Faculty Advisor).



Picture of the ECU Pirate Robot.

electromechanical systems integration using electronics, pneumatics, hydraulics, computer control and instrumentation, and tools to improve productivity and profitability of processes in manufacturing and service businesses. Through this class and competition, students learn teamwork and technology tools, skills which are eagerly sought by local manufacturing companies. Students from the Computer Science Department in the college also participated in the event by helping to program the robot.

**FALL 2012** 

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**TECS** NEWS

# The Grainger Foundation Supports East Carolina University Foundation, Inc.

The Grainger Foundation has donated \$10,000 to the East Carolina University Foundation, Inc. (ECU), for scholarship awards.

"This grant will be used to support students in the Department of Technology Systems, with priority to those students majoring in Industrial Distribution and Logistics," said David White, Dean of the College of Technology and Computer Science. "We support collaborative efforts with our local partners

to promote student success and provide the talent that industry needs to compete in the global economy. We are grateful to The Grainger Foundation for its generosity."

White said these programs currently serve approximately 1,000 students in several different majors, all of which are critical to promoting economic development in the region and beyond.

This donation was recommended by Neil Zingler, Branch Manager



David White, Dean accepts check from Neil Zingler, Branch Manager of W.W. Grainger, Inc's

of W.W. Grainger, Inc.'s, Greenville location. Grainger has been a part of the Greenville business community for more than 30 years as the leading broad line supplier of maintenance, repair, and operating products. "We are proud to recommend the programs offered by ECU's Industrial Distribution and Logistics Program," said Zingler. "We understand that one of the best ways to invest in our community is to contribute to the education of our workforce. We are excited to partner with ECU to help support and encourage the students for future success."

The Grainger Foundation, an independent, private foundation based in Lake Forest, Illinois, was established in 1949 by William W. Grainger, founder of W.W. Grainger, Inc.

The East Carolina University Foundation, Inc., was established in 1963 as a 501(c)(3) non-profit organization with a mission to fund the margin of excellence at ECU. Gifts to the ECU Foundation benefit the students, faculty,

academic programs, and research activities at ECU, and they make a significant difference in the quality and impact of our university.

For further information about Grainger, contact Kristen Lawrence, Communications Manager at kristen.lawrence@grainger.com.

For further information about East Carolina University, contact David White, Dean, College of Technology and Computer Science at whited@ecu.edu.

## **College Reaches out to High Schools and Community Colleges**

An ongoing challenge our College faces is becoming more visible among prospective students who are interested in our programs. We are working on several fronts to address this challenge. In an effort to improve our recruiting and outreach, we are pleased to introduce a new member of the College team. Margaret Turner joined the College as our recruiting coordinator this August. She has been busy this semester visiting high schools to talk with students about the exciting opportunities in the College of Technology and Computer Science. She expects to not only recruit students, but also to inform parents and professionals within the community about the multiple educational opportunities within the College. She will also work to enhance the College's social media outlets and publications, including the web site, in order to

attract prospective students. Margaret's background in engineering and consulting, her strong public speaking abilities, and her relationshipbuilding skills have already resulted in increased visibility of our College's outstanding academic programs.

Margaret is not entirely new to the College and ECU. A native of Hickory, NC, she graduated in 1990 from NCSU with a BS in Industrial Engineering. Upon graduation, and after completing several co-op

rotations, she relocated to Greenville, NC to work for Burroughs Wellcome Company as an Industrial Engineer. Margaret served in several capacities



Margaret Turner

at Burroughs Wellcome, including her role as the Technical Engineer to the VP of Manufacturing. She also served in several consulting roles in the healthcare and education industries, and most recently has served as the Outreach Coordinator for our Engineering Department. She was also directly involved in ECU's STEM Day, an initiative which involved visits of high school students and teachers to ECU's campus to gain more insight into STEM career choices and

educational paths that ECU offers. For more information, please contact: Margaret Turner: turnerm@ecu.edu or 252-328-9606



## Message from the Dean Improving Awareness of our Outstanding Programs

In Spring 2011, the College Advancement Council was convened, comprised of a group of highly successful individuals who are all very committed to the College and to ECU. The Advancement Council has given us excellent feedback and suggestions on ways we can promote and advance the College. Over the past 2 ½ years of the Council's existence, the Council and our College leadership have deliberated on these three Grand Challenges.

1. **Distinguishing the College**...how can we make the College more visible and recognized?

2. **Preparing students for success**....how can we prepare our students for success in a multicultural global workforce?

3. **Contributing to economic development**....how can we support our industry partners to promote a strong, sustainable economic future for our region and the state?

I am very proud of our continuing focus on student success and our efforts to promote economic development. This semester, we have been working most directly on Grand Challenge 1: "Distinguish the College and make it more visible and recognized." The College has been represented in a large number of high schools, thanks to Margaret Turner who was hired this year to work on outreach and recruiting. Margaret has met with almost 3000 high school students, teachers, and counselors to inform them about our great programs and career opportunities. Construction Management faculty and staff actively participated in the NC DOT High School Construction Day, where almost 1500 students came to learn more about careers in construction. Our STEM activities are bringing lots of middle and high school students to campus. We have continued to develop partnerships with our Community College colleagues to assure a smooth transition and to make sure the students are aware of the possibilities to complete their BS degree here at ECU in the College. One major breakthrough occurred here on campus as we worked with



David White, Dean College of Technology and Computer Science

our Office of Admissions to develop a better portal of entry for community college transfer students seeking the BS in Industrial Technology and the BS in Construction Management. We are even planning to put up a billboard in the near future that recognizes the College and our industry partnerships!

I hope you will continue to support the College in any way you can, through your donations, your time, the internships you may offer our students, and for encouraging others to consider a degree from the College. It is imperative that we continue to invest in the programs that our college offers. Our region and our state's prosperity depend on it.

Thank you for all you do to make our college a success!

David M. White Dean

### WOMEN ENGINEERS: ECU chapter recognized by national society

After three years of operating unofficially, East Carolina University's chapter of the Society of Women Engineers has been recognized by the national organization.

The society was created to support women in engineering and recruit women into ECU's program, which opened to students in 2004 and was established as a department one year later.

"It's such a male-dominated field that it's hard to get the women to come (to engineering)," said Karen De Urquidi, coordinator for advising and retention in the Department of Engineering and creator of the ECU society chapter.

"It's a great field for women, but they have to be shown 'you can do this,' it's not just for men, and we have a support system to help them out."

De Urquidi said the national acceptance is important because it gives ECU's chapter and the engineering program broader recognition.

"Having more affiliation with other SWE chapters will be a great benefit since we are a small program," she said, and noted that the next closest chapter is in Raleigh.

De Urquidi uses her personal experience to encourage women to explore engineering, explaining that she took 20 years off to raise a family, and still returned to engineering.

"I want to show women that you still can do it, whether you choose to work or you don't, it's still a good degree," she said. "There are people who want female engineers, because we are few and far between."

De Urquidi said women are important in the field because of the different point of view they provide.

The Department of Engineering at ECU continues to grow, with the first class graduating in 2008. Student enrollment increased from 37 in 2004 to about 450 today. Female enrollment, however, hovers between 10 and 15 percent. Six women were in the first incoming class, and today 33 engineering students are women, with 18 entering as freshmen this fall.

ECU chapter president Carman Pericozzi of Winston-Salem said she wanted to pursue engineering since her senior year when she shadowed a biomedical engineer, a profession that combines the medical field and mathematics.

"SWE has given me and other females engineering students an opportunity to form a support group and a chance to make new friends," she said.

Pericozzi said that along with recruiting other females to engineering, her involvement in the society allows her to volunteer in the community. ECU members have participated in the American Cancer Society's Relay for Life, hosted a canned food drive, and shopped for and wrapped gifts for a family during Christmas.

"Since there are so few females in engineering, SWE has helped me get to know other girls and be able to talk about my strengths and weaknesses in engineering," said SWE member Megha Sinha of Morrisville. A fascination with pacemakers, artificial organs and other medical equipment led Sinha to a biomedical engineering.

"I hope that as new members join, they can benefit from the society as much as I have."

- Melanie Jock, ECU News Services

# CHANGING DIRECTION: Students with one degree under their belts return to study engineering at ECU

Everywhere Gordon Beverly III goes, he sees things that could be improved through engineering: the unorganized flow of checkout lines at some fast food restaurants or buses taking numerous left turns when right turns are more efficient.

That's part of the reason Beverly, 27, returned to East Carolina University this fall to begin pursuing a bachelor's degree from the Department of Engineering. He already holds degrees in mathematics and mathematics secondary education from the university, and left a teaching job at D.H. Conley High School to come back to school.

Beverly is one of a handful of students studying engineering at ECU after first earning other degrees or embarking on unrelated careers. Dr. Hayden Griffin, chair of the Department of Engineering, noticed the trend this fall.

"I think the national attention to STEM (Science, Technology, Engineering and Math) and STEM careers has a lot to do with it," Griffin remarked. "There was a piece on the local TV news recently about how engineering salaries are high and there are plenty of jobs.

"One other attraction may be that the second-degree students I know all live around here, so proximity and our willingness to work with them, to allow the credits from their previous degree to count toward their engineering degree, are probably factors."

That was the case for Lauren Bridgers, an alumna of Colorado State University who moved to North Carolina with her husband in 2007. After three years teaching second and third grade, Bridgers realized the career path she'd chosen wasn't for her after all.

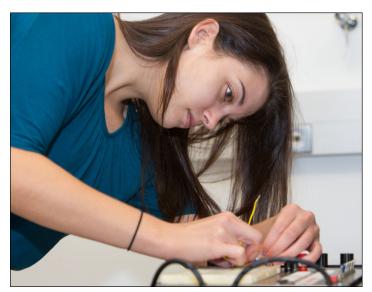
"While I loved teaching...I felt like that was 10 percent of my job and the rest was paperwork, counseling and working with parents," she said.

"I'm passionate about the environment and the root cause of a lot of environmental problems are machines. I want to use engineering to save the world."

Bridgers, also 27, said she considered attending N.C.



Gordon Beverly III, right, left a teaching job at D.H. Conley High School to pursue an additional degree in engineering at ECU. (Photo by Cliff Hollis)



ECU engineering student Barbara Sage is shown installing components for a single channel EKG heart metering device she is building in her class. (Photo by Jay Clark)

State University, but chose ECU because "it's a smaller program so I knew I would get more of a personalized education."

She is scheduled to graduate this May.

Not all second-degree students are former teachers. The department includes a student with a bachelor's degree in music, and recent graduates entered the program with prior degrees ranging from accounting to athletic training.

Barbara Sage, 24, graduated from ECU in May 2010 with a degree in exercise physiology. Originally planning to continue her education in a physical therapy program, she was disappointed by the job she saw in field observations her junior and senior years.

"Everybody has a niche and that just wasn't mine," Sage said.

She considered medical school and started a graduate degree in biology before bailing out and starting over – again – in biomedical engineering. It proved a good fit.

"Engineering is a lifelong learning degree," Sage said. "I'm really excited about working in industry."

Second-degree students are excelling in the program, Griffin said, and often outpace traditional undergraduates. The students agree that it has a lot to do with maturity.

"If I'd gone into engineering right away, I wouldn't have stuck with it," Bridgers said. "It's a lot of work for a firsttime college student. If I have one day not doing homework, it's amazing."

"People who have already (completed) a degree know how to study, know what helps them learn," Sage said.

"When I know I'm going back to school and (know) what I'm going to get out of it," Beverly added, "the motivation is already there."

More information about ECU's Department of Engineering is available online at http://www.ecu.edu/engineering/.

- Kathryn Kennedy, ECU News Services

## ALUMNI SPOTLIGHT: Mike Putnam, BS '98 and MS '01

Michael (Mike) Putnam is one of many very successful alums of the College. He now leads a very successful company called Sequence, Inc. Mike and his wife, Rebecca ('97) and their three sons live in Raleigh. He recently shared some thoughts with us about how his decision to attend ECU and major in industrial technology helped lead him to where he is today.

Sequence, Inc. is a consulting firm headquartered in Raleigh,

NC that provides quality and compliance services to Pharmaceutical, Biotech, and other regulated industries. Sequence consultants work with the world's largest manufacturers to conduct testing on equipment, computer systems, lab instruments, utilities, and processes utilized in the manufacture of life-saving drugs. Testing, commonly referred to as 'validation', ensures patient safety and achieves compliance with regulatory statutes enforced by agencies such as the Food and Drug Administration. From inception in 2002, Sequence has experienced unprecedented growth year after year. With offices currently serving the east coast and plans for additional locations throughout the country, Sequence is poised to emerge as the leading quality and compliance firm in the United States. The success of our company is a testament to our tremendous team. From building client relationships to developing new business strategies, our accomplishments would not have been achievable without our employees. Sequence is proud to have celebrated its 10-year anniversary in 2012 and each of our team members signifies the essence of our collaborative success. For more information, please visit www. sequencevalidation.com.

1. Why did you select Industrial Technology (degree) as a major? Industrial Technology was a great fit based on the opportunity it presented to learn technical skills that could be applied to a wide range of work environments. Courses like Manufacturing Processes, Technical Writing, and Industrial Safety provided a well-rounded education that enabled me to select from a number of different industries. Fourteen years after graduating, I continue to apply many of the skills learned in the Industrial



Mike Putnam

Technology curriculum to my current role as President of Sequence, Inc.

2. How do you look for ways to continue to serve ECU and the college of Technology and Computer Science? As an alumni and friend of ECU, I enjoy serving our great school and seeing its progression year after year. The most important way I serve is through sharing with others my pride in the university. Whether it be a friend with a child considering ECU

for college or a transplant to the area looking for a local team to root for, I enjoy sharing with them what ECU means to me. I also serve through recruitment of ECU graduates for our company. Approximately half of our 40+ member staff at Sequence, Inc. are ECU graduates including an all-ECU executive management team (Jeff Price, Director of Operations - Industrial Technology '99; Samir Patel, Directory of Technology - Computer Science '01: Dan Santarsiero. Director of Business Development -Industrial Technology '99). Last, I enjoy serving as an active Wake County Pirate Club Rep. Go Pirates!!!

3. How did you come to having a vision for Sequence, Inc.? After graduating from ECU I was given the opportunity to work at DSM, a contract pharmaceutical manufacturer in Greenville, NC. While there, several colleagues took me under their wing training me on quality and compliance within pharmaceutical manufacturing. Towards the end of my tenure with DSM, industry began trending towards an outsourced model for quality and compliance services. That trend coupled with a need for high-guality compliance resources spawned the vision to start Sequence, Inc. We are proud to have celebrated our 10 year anniversary in 2012 and thank our team members and clients for their support throughout the years. We look forward to a bright future for our company.

4. How did your education or ECU experience prepare you for success? ECU is much more than a college that granted me a degree. The university provided me with scholastic knowledge coupled with real-life lessons that can't be taught in a classroom. It's where I met my beautiful wife (Rebecca -Psychology '97) of 11 years whose love and support encouraged me to shoot for the stars. It's a place where I began life-long friendships with classmates and gained a sense of pride for hard-earned achievements. ECU is a second home of sorts where my family returns to enjoy football games with our 3 sons (Grayson, Chase, and Cohen) and reminisce on old times. In the end, I attribute my success to God and believe that East Carolina University was part of His perfect plan.





#### **Department of Computer Science**



Dr. Karl Abrahamson Interim Department Chair

Greetings from Computer Science. The Department of Computer Science offers four degrees.

- BA in Computer Science
- BS in Computer Science
- MS in Computer Science
- MS in Software Engineering

Each degree is strong in fundamentals. The MS in Software Engineering is

available online, and the department is expected to make the MS in Computer Science also available online within two years.

John Placer has retired, and we are engaging in a search for a new faculty member at the assistant professor level this year. As the MS in Software Engineering has grown to about 80 students, our priority is a faculty member who can help with that. We are also continuing to look into the possibility of an undergraduate concentration in software engineering, with this additional faculty member a key part of that.

The department has been pleased with the quality of its best graduate students. Boya Xie was awarded second place among ECU MS theses. The overall number of theses is up, and our graduate students are doing excellent jobs as instructors for the introduction for nonmajors course and CSCI 2310, introduction to programming.

The department continues to do research in strategic areas related to Computer Science. Department research includes work on formal modeling of software, by Junhua Ding, and creation of a test platform for Google's cloud computing services on Android smart phones by Sergiy Vilkomir. Qin Ding is a leader in a process to encourage more women to study science, technology, engineering and mathematics, including computer science.

More information is available at http://tecs.ecu.edu/ csci. Please take time to learn more about us!

ABOUT TECSCONNECTS—TECS CONNECTS is published by the office of Marketing and Communications. You can read TECS CONNECTS online at www.tecs.ecu.edu. For more information about this publication, please contact Leslie Pagliari at pagliaril@ecu.edu.

### Department of Construction Management

Greetings from the Department of Construction Management. Here are some exciting things happening in the Department this Fall.

New Faculty – Dr. Brad Carey and Dr. Donna Hollar are our two new tenure-track Assistant Professors who took up their new positions from Fall 2012 semester.



External Research Grants - \$98,000 HELP Grant (4 years) has been awarded to ECU CMGT department Dr. Syed M. Ahmed Department Chair

by the National Housing Endowment, the philanthropic arm of the National Association of Home Builders (NAHB) starting in 2013. The grant will support the development of a "Residential Construction" track within the Master of Construction Management (MCM) program and a Graduate Certificate in Residential Construction. Dr. Eric Connell is the Principal Investigator and Ms. Rebecca Macdonald is the Co-Principal Investigator on this project.

ACCE Accreditation – The CMGT department submitted their first annual report in December 2011, which was accepted by the ACCE. We will send our 2nd and 3rd year reports in December of 2012 and 2013.

CRAFT Lab - Mr. Robert Brown, Assistant Director of Facilities Engineering & Architectural Services who is also the Project Manager for the CRAFT Lab project and Mr. Steve Hall, Project Architect for Perkins + Will presented the conceptual design and rough estimate to the CMGT faculty on November 17th. The CONCEPT Design was prepared by Site Solutions and their design team. The CMGT faculty approved the conceptual design. A presentation will now be made to the CMGT Advisory Board members as early as possible.

Undergraduate Enrollment – The CMGT department has formed an "undergraduate enrollment task force" to actively investigate ways and means to increase our undergraduate enrollment. Drs. Jodi Farrington, David Batie, Brad Carey, and Donna Hollar are the task force members. Dr. Batie is the Chair of this Task Force. The task force and CMGT faculty members are working diligently towards this effort.

Curriculum Related - The title of the course CMGT 2200 (Introduction to Construction) has been changed to "Introduction to the Sustainable Built Environment". This change is expected to go into effect from Fall 2013.

International Activities – There are plans to do a "study abroad" program in China by Dr. George Wang in summer 2013.

Graduation Related - The topping out ceremony for fall semester 2012 is scheduled for December 13, in the Science & Technology Building.

The Department held our Topping Off Ceremony on December 13th. For more information about Construction Management, please visit www.tecs.ecu.edu/cmgt.



### **Department of Engineering**



Dr. Hayden Griffin Department Chair

Greetings from the Department of Engineering. We started Fall 2012 with 458 students in the program, another year of very rapid growth, up from 400 students at the beginning of Fall 2011 and 300 students at the beginning of Fall 2010. We continue to attract many transfer students, with over 40% of the new students being transfer students. We also have quite a few second degree students who have returned to school to change careers. As of December 2012 we

have almost 140 graduates of the program, and the next few graduating classes should be significantly larger. We have the potential to continue to grow, but our resources are becoming the critical element in our growth plans.

The new electrical engineering concentration is going well and is growing in popularity among students. The first graduates from this concentration will be in Spring 2014, and there is considerable interest among local industry to hire engineers with that background.

We welcomed a group of new faculty members in August 2012, replacing faculty we had lost through retirement or resignations. We have also employed two part-time faculty to help out with the crunch due to rapidly increasing student numbers and a small increase in faculty numbers. We plan to increase the number of part-time faculty in Spring 2013.

Last year we implemented a spiral curriculum (an old educational theory that has become popular again) in our program in the areas of design and project management. The new course sequence involves courses in every year of the curriculum, where concepts of engineering design, project management, and design realization are taught at an increasingly complex level in every year. The goal is to have students well-prepared for Capstone.

Our Capstone projects continue to be one of the hallmarks of the program. We have seen former Capstone sponsors continue to bring projects to us, and we have picked up a number of new companies who are sponsoring projects, including Pfizer and Covidien. Projects involving energy, worker safety, and the healthcare professions are becoming more frequent.

Our graduates continue to get very good jobs, and the list of companies where they work is very impressive. We are beginning to see some transitions in our alumni as some of them move to different opportunities. Others have stayed with the same company since graduation and are moving up in the ranks very quickly. We take great pride in them and their successes.

Development of the MS in Biomedical Engineering continues, and the program has been labeled as one of the priorities at ECU for new program development.

To find out more about our Engineering program, please take the time to visit us at http://www.tecs.ecu. edu/engr.

#### **Department of Technology Systems**

A very warm hello from the Department of Technology Systems (TSYS), formerly the Department of Industrial Technology (ITEC)! Our department continues to provide undergraduate and graduate education in key technology areas that help drive the economic prosperity of Eastern North Carolina, as well as the entire state of North Carolina.



Dr. Tijjani Mohammed Interim Department Chair

The department successfully underwent a Unit Academic

Program Review (UAPR) this semester. This seven-year university review of academic programs is intended to "improve both undergraduate and graduate education at ECU." In addition to the UAPR, the department is preparing for a visit by our accrediting body, the Association of Technology Management and Applied Engineering (ATAME) during the spring 2013 term.

As an alumnus of our department, I wanted to seize this opportunity share information on our graduate degree and certificate programs, which are available completely online. Our department offers two master's degree programs: the Master of Science in Occupational Safety (MSOS), and the Master of Science in Technology Systems (MSTS). In addition, we are in the final stages of creating a new master's degree program in Network Technology (MSNT). If approved, this degree program should be accepting students for the Fall 2013 term. These programs provide many working professionals with opportunities obtain graduate degrees and/or certificates degree completely online. For those of you looking for something shorter, our graduate certificate programs provide a another alternative for obtaining additional boost in credentials for that upgrade in your current job, or other professional opportunities, such as adjunct teaching appointments at the undergraduate level at various colleges.

The department also participates in a consortium-based PhD degree program in Technology Management. This opportunity for advanced study may pave the way for rewarding academic careers in many of the technology areas of concentration offered by our department.

Industry support for our programs continue to pour in to provide financial assistance for our students. The most recent was a \$10,000 donation from Grainger Company to support our students. In addition, our designation as one the National Centers of Excellence in Information Assurance Education (CAEIAE) by the National Security Agency (NSA) and Department of Defense (DoD) continues to provide excellent scholarship opportunities for both undergraduate and graduate students.

Please contact us if you are interested in helping to shape the future of our programs by becoming engaged with one more of several program advisory boards in our department. You can obtain the latest information from about the Department and connect with us by visiting our website at: http://www.ecu.edu/cs-tecs/techsystems/ index.cfm.



College of Technology and Computer Science Science and Technology Building, Suite 100 Mail Stop 507 East Carolina University Greenville, NC 27858-4353



# **Giving Matters**

Looking back over 2012, we are so grateful for the growth in philanthropic development from our alumni and industry partners. The College of Technology and Computer Science embraces the challenges and opportunities in advancing our needs in development which adds educational value of our current students while increasing the value of our degreed alumni. This year the college has enjoyed continued and new industry partnerships that are investing in scholarships and lab endowments. Below are several hilights of how our industry friends made a difference in 2012:

• Caterpillar and Gregory Poole Equipment Company donated to fund the STEM pipeline initiative allowing our college to work with school-aged youth who have an interest in a STEM related career.

• The Keihin- Carolina Systems

East Carolina University.

engineering technology industry A PRODUCTIVE PARTNERSHIP Technology Controls and

Instrumentation Lab will be dedicated this spring.

• Grainger Industrial supply established four student scholarships to be awarded in 2013

• Grady-White Boats sponsored STEM girls Day camp allowing us to invite 100 middle school girls to campus to gain hands-on practical experience in areas of STEM.

Through our Advancement Council and outreach initiatives we continue to expand our network of industry support and appreciate the relationships we share with all of our partners. We also continue to grow our engagement and percent of participation of alumni giving back. During these lean and challenging fiscal times, we are so appreciative to our donors at all levels of giving that support our college. We owe our YOU a great debt of gratitude for your support and

hope that we can continue to grow our annual fund through alumni giving. Please be sure to update your records



Dean David White and Major Gifts Officer, Michael Ward

on our website via the alumni update link which can be found at: www/ecu.edu/tecs so that we can continue to stay connected with you. If I can ever be of assistance in helping you to achieve your philanthropic goals with the college please do not hesitate to contact me.

Lastly, I would like to acknowledge and thank Gregory Poole Equipment Company whom through their sponsorship allow us to stay connected with our donors through Tecs Connects. I hope you find 2013 to be one of good health and success.

Michael Ward Gifts Officer College of Technology and Computer Science wardmi@ecu.edu 252.328.9566

