A Newsletter from the University of Tennessee College of Engineering's Office of Engineering Diversity Programs

Spring 2011

• UTK's 50 Years of Diversity Celebration
• TLSAMP Research Conference
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Engineering the Future
University of Tennessee Celebrates 50 Years of Diversity

On January 4, 2011, the University of Tennessee, Knoxville (UTK) acknowledged the 50th anniversary of African American undergraduates on campus with the beginning of a yearlong celebration. The kickoff event, which took place on February 13, featured a march from the Torchbearer statue and a celebratory program featuring Olympian and UTK engineering alumna Benita Fitzgerald Mosley as keynote speaker.

In January of 1961, Thelma Robinson Jr., Charles Edgar Blair and Willie Mae Gillespie registered as the first African American undergraduates at UTK. Although minority students had received graduate degrees in the 1950s, the university did not open undergraduate admissions to African Americans until the early 1960s.

Benita Fitzgerald Mosley

Additional events for the 50th anniversary celebration included the premiere of The Color Orange. The Camden Hallstein Story, a one-hour film about the former UTK quarterback and the first starting African American quarterback in the Southeastern Conference. The film was shown on ESPNU on February 20.

During the month of May, the Black Alumni Council held its annual meeting May 14-17, and the Aiken Haley Celebrity Golf Weekend took place the weekend of May 15-17, honoring the author of Rains and former Knoxville resident. The College of Engineering (COE) will host a special afternoon designed to showcase the Engineering Diversity Programs (EDP) department on Friday, September 23 from 1:30 to 3:30 p.m. in 311 Estabrook Hall. Dean Wayne Davis and Travis Griffin, director of the Office of Engineering Diversity Programs, will speak at an open forum that will also feature several students who are currently enrolled in engineering diversity programs. All COE alumni are invited to attend, and parking will be available in the University Center garage. A Grand Gala honoring diversity on campus will take place the evening of September 23.

The college is also making preparations for the 35th anniversary of engineering diversity programs in 2012. The COE’s Minority Engineering Scholarship Program (MESP), which was established in 1973 under the direction of Fred Brown, has continued to be one of the country’s most successful diversity initiatives. It was renamed the Diversity Engineering Scholarship Program (DESP) in 1999. The celebration will include the 2nd Annual Tennessee Louis Stokes Alliance for Minority Participation Awards Banquet on April 16, 2012, at the EDP Homecoming Gala on November 2, 2012, which will feature special activities for African American alumni.

For more information about the university’s 50th celebration of diversity on campus, visit http://achieve.utk.edu/events.shtml. For more information about the university’s 50th celebration of diversity on campus, visit http://achieve.utk.edu/events.shtml. For more information about the university’s 50th celebration of diversity on campus, visit http://achieve.utk.edu/events.shtml.

The Values of INROADS by Desiree Seymour, TLSAMP Scholar

A great man once said, “Success happens when preparation meets opportunity.”

INROADS: On November 22, 2010, Lavatrice Sankey, INROADS Southeast manager, delivered a presentation entitled “Preparing students for internships and scholarship opportunities.” She shared her personal experiences as an alumna of Tennessee State University, the Values of Internships and Scholarship Programs, and her role as an INROADS mentor.

Sankey emphasized the importance of time management and communication skills. After the meeting, students were rewarded for their efforts by the many door prizes given away during the event. A great many seekers of internships in the areas of engineering, mathematics and science. They were also given the opportunity to attend several breakout sessions that discussed a variety of topics ranging from internships and mentorship opportunities at Oak Ridge National Laboratory, The Values of Internships and Scholarship Programs, and the Values of Graduate School and STEMDiscipline.

After attending the oral presentations and breakout sessions, participants in the conference then gathered at the closing luncheon at the University Center Volunteer Ballroom. The keynote speaker for the luncheon was Dr. Tyrone B. Hayes, Sr., a professor in the Department of Integrative Biology at the University of California, Berkeley. His presentation captured the audience’s attention by discussing how his underrepresented research on frogs helped shape his future career and eventually led to several outstanding breakthroughs. Dr. Hayes’ presentation really got the participants excited about the future of the STEM disciplines.

In all, each participant gained a renewed sense of determination after attending this conference. Students were able to not only network with corporate and graduate representatives, but they also interacted amongst themselves and established the connection that TLSAMP really serves for.

The Values of INROADS

INROADS and seeking future internships. Sankey urged students to constantly better themselves by networking, continuously seeking and gathering new knowledge and taking advantage of opportunities made available. During the presentation, she showcased students who have applied for internships and were rewarded through INROADS. Many students involved with INROADS intern with a company and are frequently promoted to work full-time with that company. Xavier Jones, a senior in the College of Engineering, has interned two years with Deloitte, and is currently seeking his full-time position. Sankey added.

The Values of INROADS

INROADS is an international corporation that has 45 offices across the U.S. and serves more than 2,300 interns at over 200 companies. The INROADS mission is to develop and place talented minority youth in business and industry and prepare them for corporate and community leadership.

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She demonstrated one particular way students could practice confidence to sell themselves to any company, and that was through a thirty-second “elevator speech.” The speech consists of interesting and pertinent facts about a student that would make them marketable and could be delivered to someone while in an elevator. Sankey also expressed the importance of time management and communication skills. After the meeting, many students were enthusiastic about applying to INROADS and seeking future internships.

The Values of INROADS
**Engineering Diversity Hosts “Guaranteed 4.0” Seminar** by Amber Ingram, TLSAMP Scholar

Donna C. Johnson, founder and president of Guaranteed 4.0 Learning System, LLC, spoke to UT students on Monday, August 23, 2010, at the University Center.

“Stop studying and start learning,” Johnson said.

Students received this advice at the seminar as Johnson lectured on her unique learning system. The average person remembers only 10 to 30 percent of what they read. Johnson promised she could increase retention to 80 to 90 percent using her advanced bullet-point reading method.

The workshop, sponsored by the Office of Engineering Diversity Programs within the College of Engineering, brings enthusiasm and excitement to learning as Johnson uses innovative learning techniques that teach students to manage their time efficiently as well as effectively to manage stress in order to provide an overall framework for academic success.

Students who adopt the Guaranteed 4.0 plan will see significant changes in their school performance. Trenton Wells, sophomore in industrial engineering, was motivated by Johnson’s lecture.

“I liked how she kept the program simple, in which she emphasized just is more in terms of studying more efficiently,” Wells said.

“Everyone processes information one chunk at a time, with a chunk consisting of 3-5 words,” Johnson stated.

The seminar teaches students how to break down information and put it in chunk-format, formerly known as a bullet-point. By strategically repeating the bullet-point notes, students are able to transfer this information from short-term to long-term memory in the quickest possible manner.

Many students felt Johnson’s lecture was intriguing and up-to-date, as well as a great start to the academic year. Tim Reid, senior in nuclear engineering, said he wished he had known about the program during his freshman year.

“The essence of the seminar and the topic was great,” Reid said. “The program challenged me to analyze my study skills that I developed during my tenure at UT.”

Reid added that following this plan will prepare him for graduate school.

“Ms. Johnson’s heart was really in the massage,” Reid commented.

Created more than 18 years ago, the Guaranteed 4.0 is a proven system that consists of a combination of innovative study methods. The program was well received as Johnson delivered an important message to over 200 student attendees that evening.

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**TLSAMP Students Attend Women of Color in STEM Conference 2010** by Alexandria Butler, TLSAMP Scholar

The 2010 Women of Color (WOC) Conference was truly an engaging and interactive experience for all who were able to participate. Held in Dallas, Texas, this year marked the 15th anniversary of a conference dedicated to mentoring successful, upward-moving minority women in Science, Technology, Engineering and Mathematics (STEM) fields.

Providing an array of opportunities, the WOC Conference offered several seminars that allowed attendees to acquire more information and interact with professionals of various fields of study. Seminars offered subjects including resume writing, interviewing skills, information technology, computer science, business and financial operations, the life sciences, and even security awareness. As an attendee at the life sciences seminar, I was especially impressed with being able to openly discuss career paths with several successful women, one being Dr. Joan Packerham. Packerham became the first African American to graduate with a Ph.D. in the field of experimental and cellular pathology from the University of North Carolina. She is now the director of Human Research Compliance at The National Institute of Environmental Health Sciences (NIEHS), a division of the National Institute of Health (NIH). During our seminar, Packerham portrayed the values of a science education and also offered advice and encouragement for those interested in pursuing research in the future. It was such an honor to be able to sit in with such a distinguished individual who had high hopes and words of wisdom to pass on to the younger generation. Packerham was also honored by her peers at the conference for her achievements, receiving an award that night in recognition of her accomplishments.

**DIVERSITY programs & updates**

College of Engineering Hosts Summer Enrichment Programs 2010 by Julie Wichlinski, COE Development Office

This past summer, the Office of Engineering Diversity Programs remained busy with our series of engineering programs for prospective underrepresented (African American, Hispanic American, Native American and women) engineering students. The objective was to provide an introduction into each discipline of engineering and showcase the applications of math and science. Middle School Introduction to Engineering Systems (MITES) was the week of July 18-23, Introduction of Sophomores to Engineering Principles (INSTEPP) was July 25-30 and High School Introduction to Engineering Systems (HITES) concluded the summer during the week of August 16.

Participants for MITES were incoming 7th and 8th grade students, INSTEPP were incoming 9th and 10th grade students and HITES were 11th and 12th grade students. Each programaccommodated between 22 and 26 participants. Participants learned about careers in engineering, explored the University of Tennessee, Knoxville campus, toured engineering labs and facilities, competed in engineering challenges, cultivated new friendships, spent a week living on a college campus and gained a jump start on their academic career.

On Thursday, August 5, as the students’ week was coming to an end, they arrived at the reception full of excitement and anticipation for their presentations. The excitement and confidence they exuded was undeniable, and we know it was a direct result of the HITES program. As the reception was coming to an end, we asked for a few volunteers to share their experience, and we were surprised and delighted to see the entire group head toward the front of the room. One student said, “It really was a great experience and opportunity because I can now tell people the real definition of engineering.” This was followed by each student stating which discipline they intended on studying, why they chose it and which type of engineer they aspire to be.

The presentations were challenging for the students at first because many of them had not ever worked in a team environment. They were not inclined to trust each other and were hesitant about working with others without previous knowledge of their background. These projects resulted in much more than a final presentation but rather the creation of values and an unforgettable character building experience. One student said, “We learned more than engineering, including personal skills such as teamwork and speech.”

Dr. Fred Tompkins from the Department of Biostatistics Engineering & Soil Science wrote a brief article about his experience with the HITES students.

“In spite of the heat and humidity, the students stayed focused and fully engaged and seemed to have a great time,” Tompkins said. “While participating in data collection as part of a flow rate experiment being conducted by a graduate student, one young woman looked up at her teammates with a broad smile and said, ‘I’m going to be an engineer.’”

After each program, we received a multitude of thank you responses from students, parents and professors. One of the HITES student said, “I would like to thank you all for the wonderful experience my daughter had at your summer program. She enjoyed the program, and her interest in engineering is growing. She was very attentive about attending the program, but found herself having the time of her life!”
University of Tennessee Hosts First TLSAMP Awards Banquet

The University of Tennessee, Knoxville (UTK) hosted its first Tennessee Louis Stokes Alliance for Minorities in Research (TLSAMP) Awards Banquet on Monday, April 18, 2011, at the UTK Visitor Center. The goal of the TLSAMP program is to increase the enrollment and graduation rates of underrepresented minority students (Hispanic, African American, American Indian, Asian, Native, and Pacific Islander) in science, technology, engineering, and mathematics (STEM) by at least 10 percent at the end of the five-year period. The objective is to support the goal of the alliance to recruit underrepresented students to pursue science and engineering as a career, improve the quality of the learning environment for underrepresented science and engineering students at all schools, and ensure that a larger number of undergraduate students are prepared to enter graduate programs.

The banquet proceeded with the recognition of faculty and students receiving special honors from TLSAMP, the Society of Hispanic Professional Engineers (SHPE) and the National Society of Black Engineers (NSBE). The list of merit awards with their respective recipients is below.

The ceremony featured a slideshow during the dinner of TLSAMP, SHPE and NSBE activities that took place throughout the school year. The evening was closed by comments from Dr. Lonnie Sharpe, Executive Director of the TLSAMP program. Overall, the banquet was memorable and well executed. Congratulations to all the award recipients and special thanks to TLSAMP students, faculty, staff and guests for making the academic year a memorable one.

SHPE Awards

Outstanding Presenter Award
Dr. Ernest Brothers, Assistant Dean for Graduate School

Special Recognition Award
Dr. Masood Parang, CDE Academic Chairs for Academic and Student Affairs

NSBE Awards

Most Dedicated Member Award
Michael Mason, Mechanical Engineering

The Golden Torch Award
Ebony Lemons, Civil & Environmental Engineering

TLSAMP Graduating Seniors Awards
Quiny Beasley, Biomedical Engineering
Andrew Burke, Computer Engineering
James Ensley, Civil Engineering
Erika Hawkins, Biomedical Engineering
Xavier Jones, Computer Engineering

Shane Nunnally-Vincent, Biomedical Engineering

TLSAMP Faculty of the Year Award
Dr. Travis B. Bennett, Electrical Engineering

TLSAMP Outstanding Volunteer Service Award
Amber Ingram, Industrial Engineering

TLSAMP Outstanding Research Award
James Emely, Civil & Environmental Engineering

TLSAMP Freshman of the Year Award
Adedeye Ademola, Chemical Engineering

TLSAMP Scholar of the Year Award
Xavier Jones, Computer Engineering

TLSAMP movers & shakers

Sahab Crewe-Karris, Amber Ingram and Dr. Lonnie Sharpe

Adedeye Ademola, Chemical & Biomedical Engineering freshman, received a summer 2011 undergraduate research experience with the Tennessee Solar Consortium and Storing Using Outdoors, Research & Education (TNSCORE) program in the Advanced Solar Conversion and Innovation research area at the University of Tennessee in Knoxville. Ademola was also recognized as a Board of Corporate Affiliates (BCA) Scholar by the National Society of Black Engineers at the 57th Annual National Convention held in St. Louis, Mo., on March 23-27, 2011.

Darryl (T.J.) Bell, Electrical Engineering senior, received a summer 2011 undergraduate research experience with the Department of Electrical Engineering & Computer Science at the University of Tennessee in Knoxville.

Alexandra Butler, Biomedical Engineering sophomore, received a spring 2011 undergraduate research experience with the Department of Mechanical, Aerospace, & Biomedical Engineering in the Nano-Particles of Ivy Rooflets with Biomedical Applications research area at the University of Tennessee in Knoxville.

Janelle Dunn, Industrial Engineering junior, received a full 2011 cooperative education experience with RH Johnson Aerospace Corporation in Jackson, Tenn., as a manufacturing engineer.

James Emely, Civil Engineering senior, received a summer 2011 undergraduate research experience with the Department of Civil & Environmental Engineering at the University of Tennessee in Knoxville.

Auren Glover, Industrial Engineering senior, received a summer 2011 internship with Google, Inc., in Mountain View, Calif., as a Software Platforms intern. Glover was also recognized as a Board of Corporate Affiliates (BCA) Scholar by the University of Tennessee in Knoxville.

Alan Hancock, Electrical Engineering senior, received a summer 2011 undergraduate research experience with the Department of Electrical Engineering & Computer Science at the University of Tennessee in Knoxville.

Jertika Hall, Chemical Engineering senior, received a spring 2011 cooperative education experience as a Dow Chemical maintenance plant engineer with Dow Chemical in Charlotte, N.C.

Breana Harwell, Materials Science & Engineering junior, received a summer 2011 undergraduate research experience with the Department of Materials Science & Engineering in the synthesis and characterization of scintillation materials for radiation detection research area at the University of Tennessee in Knoxville.

Gary Hathaw, Mechanical Engineering junior, received a spring 2011 internship with Oak Ridge National Laboratory in Oak Ridge, Tenn. Hathaw also received a summer 2011 internship with Schlumberger in Commerce City, Colo.

T. Shane Hatton, Mechanical Engineering sophomore, received a spring 2011 undergraduate research experience with the Center for Musculoskeletal Research at the University of Tennessee in Knoxville. Shane also received a 2011 undergraduate research experience with Southern Company in Atlanta, Ga., in the Design Group division.

Amber Ingram, Industrial Engineering senior, received a summer 2011 internship with Eastman Chemical Company in Kingsport, Tenn., as a chemical engineering intern.

Jalvee Tarfer, Biochemistry & Cellular and Molecular Biology sophomore, received a summer 2011 undergraduate research experience with the Department of Biochemistry & Cellular and Molecular Biology in the Ethylene Sulfonation in Materials Science & Engineering research area at the University of Tennessee in Knoxville.

Anderson Jackson, Industrial Engineering senior, received a spring 2011 cooperative education experience with AILTEC Industries in Burnsville, N.C., working in the quality division.

Darius Jones, Electrical Engineering junior, received a summer 2011 internship with Novell in Atlanta, Ga., as a reliability engineering intern.

Marcus Jones, Mechanical Engineering sophomore, received a Department of Civil & Environmental Engineering Group, Inc. in Houston, Texas, as a mechanical engineering intern.

Marquita Monell King, Biochemistry & Cellular and Molecular Biology sophomore, received a summer 2011 undergraduate research experience with the Minority Summer Research Program at Vanderbilt University located in Nashville, Tenn.

Ebony Lemons, Civil Engineering junior, received a summer 2011 undergraduate research experience with the Department of Physics in the Advanced Solar Conversion and Innovation research area at the University of Tennessee in Knoxville.

Travon McEvoy, Aerospace Engineering junior, was recognized as a Board of Corporate Affiliates (BCA) Scholar by the National Society of Black Engineers at the 57th Annual National Convention held in St. Louis, Mo., on March 23-27, 2011.

Stefan Nwandu-Vincent, Biomedical Engineering sophomore, received a spring 2011 undergraduate research experience with the Center for Musculoskeletal Research at the University of Tennessee in Knoxville.
The Ambition of NSBE’s Fall Regional Conference
by Jonathan Calvin, NSBE and TLSAMP Scholar

What does your major do? What type of occupation do you see yourself in while concluding the studies relevant to your present academic endeavors? How does a professional behave in the field of his or her profession?

The National Society of Black Engineers Fall Regional Conference of region three answered these questions and many more to interested students who want to excel in the various fields of engineering and other science, technology and mathematical related fields.

This year, the NSBE Fall Regional Conference of region three was hosted in Birmingham, Ala., at the beautiful hotel of Sheraton Birmingham. Multiple sessions were offered between the evening of November 12 and the morning of November 14 to show young future professionals how to succeed.

The conference’s theme, “Engineering the Gateway to Success,” could not have been worded any better. Students of various age groups and schools not only had an opportunity to interact with professionals and prestigious individuals who hold the title of Ph.D., but also networked with one another. Whether it was intra-chapter or extra-chapter, the conversations with all who had similar aspirations were uplifting and unforgettable.

We hoped, we learned and now it’s time for us to continue to achieve. Throughout the conference, our region saying was “three ready.” I am positive that everyone who participated in the conference could join together and shout, “WE ARE READY!” We’re ready to succeed, we’re ready to accept our responsibilities that come with the power of education, and we’re ready to change the world.