Celebrating 40 Years of Diversity at the University of Tennessee
Engineering Diversity Programs Celebrate 40 Years of Achievement in 2013

In 2013, the University of Tennessee College of Engineering (COE) is celebrating 175 years of engineering at the university. In 1838, the first engineering course, surveying, was offered at what was then East Tennessee College.

During this significant year, another important anniversary is also taking place. The college will recognize forty years of engineering diversity programs in 2013.

In 1973, the COE established the Minority Engineering Scholarship Program (MESP), designed to motivate highly qualified African-American young people to select engineering careers. Mr. Fred D. Brown Jr. was the first director of MESP and it was his dedication that helped to launch the fledging program from an initial enrollment of only seventeen African-American students.

In 1999, the MESP was renamed the Diversity Engineering Scholarship Program (DESP) and was incorporated into the Engineering Professional Practice Office. The college’s minority outreach programs were renamed Office of Diversity Programs (ODP) and incorporated pre-college summer programs for middle and high school students; bridge programs for new freshmen; recruiting initiatives targeted to potential underrepresented students; and retention programs. James Pippin was Brown’s successor, and remained director of the ODP until his retirement in 2010. Travis Griffin was named director in 2010.

Griffin said in the four decades since the minority outreach programs were established, UT has consistently ranked among the top fifty universities and colleges in the nation for graduation rates of African-American engineering students. The college has graduated more than nine hundred minority students.

Since 1997, the ODP has established a number of outreach programs for pre-college students. The diversity office participates in the college’s annual Engineers Day, an event for regional high school students. In 2012, close to one thousand two hundred students from fifty-five different high schools (and some home schoolers) traveled to the UT campus to explore and learn about the various aspects of engineering through discussions, project demonstrations and exhibits prepared by engineering student clubs and societies.

This year, the ODP will also host four summer enrichment programs for potential engineering students. The Middle School Introduction to Engineering Systems (MITES), for rising seventh and eighth graders, offers hands-on projects, teambuilding experiences, and a tour of the American Museum of Science and Energy in Oak Ridge.

The Engineering Volunteers for Ninth Graders (eVOL9) is sponsored by the Battelle-Tennessee STEM Innovation Network and offers ninth graders engineering project sessions, introduction to ACT math preparation, and off-campus visits to manufacturing sites. The companion program, Engineering Volunteers for Tenth Graders (eVOL10) will include an introduction to chemistry, more project design elements, and instruction on the different engineering disciplines.

The High School Introduction to Engineering Systems (HITES), for rising eleventh and twelfth graders, has two sessions; one sponsored by Eastman Chemical and the second sponsored by Bechtel Corporation. HITES provides a thorough introduction to college life on campus, lab work sessions, and engineering design experience.

The ODP also provides recruitment and retention initiatives for underrepresented students pursing degrees in engineering at both the undergraduate and graduate level. The program offers academic counseling, scholarships, mentoring, industry tours, and corporate networking opportunities.

In recent years, the ODP has expanded its outreach to Hispanic, Native American, Pacific Islanders, Alaskan Native, and female prospective and current students.

The college’s diversity program is also part of the Tennessee Louis Stokes Alliance for Minority Participation (TSAMP), a National Science Foundation funded program designed to increase the enrollment and graduation rates of underrepresented students in science, technology, engineering, and mathematics. Additionally, along with one hundred fifty-two universities, UT serves within a nationwide program with the National Consortium for Graduate Degrees for Minority Engineers (NCUR), a National Honor Society.

The college’s primary focus is to administer and award fellowships with paid internships to highly qualified underrepresented students who wish to pursue graduate studies in engineering or science.

The ODP has also served as an important member of the National Society of Black Engineers (NSBE) student chapter. The Department of Civil and Environmental Engineering and the Department of Industrial and Systems Engineering began in the Fall semester of 2013, will take place at 10:00 a.m., and at the University of Tennessee and College of Engineering faculty, staff, students, and alum, as well as the general public, are invited to attend. The dedication event will be followed by a reception, tours of the new Tickie facility and other engineering buildings, and department open house.

The fortieth anniversary of the Office of Engineering Diversity will be acknowledged with a luncheon and program (reservations required) for invited guests on that same day.

On the evening of October 4, the college will host a gala celebration recognizing 175 years of engineering at UT. This event will feature a reception at 6:00 p.m., banquet at 7:00 p.m. and a special program after dinner that includes a keynote speaker and video presentation.

I hope you will plan to join us for these very special events! For more information on the college’s 175th anniversary celebration, the Tickie Building dedication events, and the diversity fortieth anniversary luncheon, please visit http://www.engr.utk.edu/175/.

Sincerely,
Wayne T. Davis
Dean, College of Engineering

A Message from the Dean of Engineering

Wayne T. Davis

The University of Tennessee College of Engineering is celebrating in 2013.

This year, we are hosting several special events to acknowledge the 175th anniversary of engineering at the University of Tennessee. In 1838, the first engineering course, surveying, was offered at what was then East Tennessee College.

We are also celebrating the fortieth anniversary of our engineering diversity programs. Established in 1973 by Fred Brown, this initiative is a point of pride for the college, as we are an acknowledged national leader in the recruitment, retention, and graduation of underrepresented students. I salute Mr. Brown, his successor James Pippin, the current Office of Diversity Programs (ODP) director Travis Griffin, and the many, many students who have worked so hard to make this program a success.

We have a number of special activities planned for these two significant anniversaries.

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Halt, the first building on the UT Knoxville campus to be named for an African-American person and commemorates Brown’s contributions to engineering education.

The residence hall, currently under construction on Andy Holt Avenue, is the first new residence hall to be built in forty-three years, and will accommodate seven hundred and six women when it opens in 2014.

“The fortieth anniversary celebration will acknowledge the many years of pre-college, undergraduate, and graduate achievement by our students,” said Griffin. “We hope that everyone will join us for this exciting and very special event.”
HITES Program Receives National Recognition

The National Association of Multicultural Engineering Program Advocates (NAMEPA) has selected the College of Engineering’s High School Introduction to Engineering Systems (HITES) program as its 2013 Outstanding Pre-College/Community Organization Award recipient. HITES offers a one-week residential experience for rising eleventh and twelfth grade students. The program provides an introduction into engineering, college life preparation, and showcases the applications of math and science. The award recognizes HITES for inspiring students through college preparatory, retention, and graduation. The program serves as a model for research institutions and minority-serving institutions to increase minority engineering enrollment. HITES was recognized at the 34th Annual NAMEPA National Conference in West Lafayette, Indiana, in February. Since the beginning of 2001, HITES has provided the experience to over two hundred high school juniors and seniors. In 2011, 86 percent of seniors decided to major in engineering once they enrolled in engineering.

“For me, the HITES program was the beginning of my college experience,” Brandon Harneck, a freshman in industrial engineering, said. “I was exposed to many different engineering majors and switched interests to industrial engineering. The program also got me excited about UT by showing the campus, facilities, and campus life available, despite that walk up the Hill.”

The NAMEPA Outstanding Pre-College/Community Organization Award was established to honor pre-college programs, community organizations, or individuals who have been active in increasing the participation of minorities in engineering disciplines at the pre-college or community level. NAMEPA is a national network of educators and representatives from industry, government, and nonprofit organizations who share a common commitment to improving the recruitment and retention of African Americans, Hispanics, and American Indians earning degrees in engineering. For more information about NAMEPA, visit http://www.namepa.org.

Erica Echols is the new coordinator in the Engineering Diversity Office. Erica Echols earned an MS in environmental science and policy from the University of South Florida St. Petersburg campus and a BS in chemistry from North Carolina A&T State University. Her collegiate experience and graduate experiences in programs such as the NC-LSAMP, FG-LSAMP, and Minorities Striving and Pursuing Higher Degrees of Success (MS PHD'S) programs have enhanced her professional qualities by honing her interpersonal skills and exposing her to both scientific research and educational leadership.

“All three of these programs taught me what it means to be a mentor and how to show genuine interest in the success of another individual.”

GEM Consortium Hosts GRAD Lab

The University of Tennessee and Oak Ridge National Laboratories (ORNL), in conjunction with the national GEM Consortium, hosted the Getting Ready for Advanced Degrees Laboratory (GRAD Lab) on Saturday, Sept. 29, 2012, at the Carolyn P. Brown University Center on the UT Campus. The fun, free event was designed to inform and motivate students from underrepresented groups in STEM (Science, Technology, Engineering, and Math) fields to understand the importance of a graduate degree. The event hosted sixty-one participants consisting of undergraduate STEM students—particularly freshmen, sophomores, juniors, and seniors—and master’s students considering a PhD pursuit from seven institutions (Humboldt State University, Mississippi State University, Norfolk State University, Southern Polytechnic State University, Tennessee Tech, UT-Knoxville, and UT-Chattanooga).

Speakers provided their insight and experience on graduate school and beyond, including Dr. Carolyn Hodges, Vice Provost and Dean of the UT Graduate School; Michele Lezama, Executive Director of the National GEM Consortium; Dr. Jeffrey Green, Director of Energy and Transportation Science at Oak Ridge National Laboratories (ORNL); Dr. Ernest Brothers, Assistant Dean of the UT Graduate School; Channa Palmer, High Tech Hispanic University Recruitment Office; Dr. Marcus Huggins from the GEM Consortium; and other GEM representatives.

Students learned how to successfully apply to graduate school and find funding opportunities. Topics included “Why Graduate School?”; “How to Prepare for Graduate School”; “Understanding the GEM Fellowship”; and “Voices from the Field: Real Life Research and Internship Experiences.” Participants from the GRAD Lab expressed the following experiences:

“My expectations were exceeded. I had no desire to attend graduate school before but now I am putting serious consideration into attending graduate school.”

“The program provided a lot of information that I didn’t have knowledge of pertaining to the process of getting into graduate school. A lot of the information provided will be very useful to me when I am applying for graduate school.”

“The program offered a graduate school and undergraduate research fair with representatives from UT, Oak Ridge National Laboratories, Case Western Reserve University, Emory University, TN-SCORE, National Institute for Mathematical and Biological Synthesis, and the Center for Ultra-Wide-Area Resilient Electric Energy Transmission Network.”

Diversity Office Welcomes Erica Echols

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“Through HITES, I decided not only what field I wanted to study, but it also made me decide to attend UT,” said Kaleise Howse, a freshman in industrial engineering. “It was truly a blessing to work with programs, such as TLSAMP, that are similar to the ones that have afforded me many opportunities.” She added “The Engineering Diversity Programs staff and students have welcomed me with open arms and made my transition to Tennessee a smooth one.”
The University of Tennessee (UT), Knoxville, hosted its Third Annual Tennessee Louis Stokes Alliance for Minority Participation (TLSAMP) Awards Banquet on Monday, April 15, 2013, at the Carolyn P. Brown University Center. The event was moderated by Andre Shibata, a sophomore majoring in material science and engineering and Elyse Vaughn, a sophomore majoring in biochemistry and cellular and Molecular Biology. The goal of the TLSAMP program is to increase the enrollment and graduation rate of underrepresented ethnic minority students (Hispanic, African-American, American-Indian, Alaskan Native, and Pacific Islander) in science, technology, engineering, and mathematics (STEM) by at least 100 percent at the end of the five-year period.

Guests were welcomed by Travis Griffin, Director for the Office of Engineering Diversity Programs. Students, faculty, administrators and guests were recognized for their exceptional involvement in the TLSAMP program.

Cavanaugh Mims, an UT nuclear engineering alumnus and entrepreneur, was the evening’s guest speaker. Mims is the president of Visionary Solution, LLC, a small business and minority business enterprise (MBE) providing proven solutions for complex issues involving transportation and logistics, program management, recreation and utilization, industrial, and training services.

“Always believe in yourself, because if no one else is going to believe in you, you’ve got to be the one to always believe.” Mims told the group in his remarks.

The program included 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 ceremony also featured a slideshow during dinner of TLSAMP, SHPE and NSBE activities that took place throughout the school year.

In his remarks at the close of the banquet, Griffin said “Currently, the TLSAMP program at UT currently provides assistance to over two hundred underrepresented students this school year. Since 2002, UT’s underrepresented annual STEM degree production has increased by 43% and STEM enrollment increased by 73% as of 2012. These are truly remarkable achievements.”

Awards presented at the banquet included:

**NSBE Awards**
- NSBE Freshman of the Year Brandon Hambrick
- Material Science & Engineering
- The Golden Torch Award Michael Swift
- Electrical Engineering
- Faculty of the Year Christian Barnes
- Chemistry
- Outstanding Volunteer Service Jermaine Cheairs
- Electrical Engineering

**TLSAMP Graduating Seniors Awards**
- Darryl (T.J.) Bell
- Christian Canady
- Shaara Cockrell
- Shanel Crawford-Harris
- Cheyenna Flair
- Breana Harvell
- Erica Hawkins
- Amber Ingram
- Darius James
- Ebony Lemons
- Stephanie Long
- Timothy Mickens
- Mia Mitchell
- Eric Prado
- Harasika Prinston
- Kirsten Richard
- Desiree Sassy
- Diana Shelby
- Michael Swift
- Bradford Taylor
- Thomas Turner
- Chandlier Wallace
- Jasmine Wheeler
- Evan Wilson
- Tedros Yohannes

**Outstanding Research Award**
- Ebony Lemons
- Civil Engineering

**Freshman of the Year**
- Cynthia Nkem
- Biological Sciences

**TLSAMP Scholar of the Year**
- Evan Wilson
- Chemical Engineering

**SHPE Awards**
- SHPE Jr. Chapter Award McGavock High School
- SHPE Member of the Year Johnson Luma, Civil Engineering

**1997**
Middle School Introduction to Engineering Systems (MITES) was established for rising seventh and eighth grade students.

**1999**
HESP moved to Office of Professional Practice and Interact Program and became Diversity Engineering Scholarship Program.

**1999**
Office of Minority Engineering Programs (MEP) was established including pre-college undergraduate, and graduate support programs.

**2000**
Introduction of Sophomore to Engineering Principles (SREP) was established for rising ninth and tenth grade students.
“Always put your best foot forward, and be well prepared for the interview,” Ogden added. “Since the interview is probably the most important part of the hiring process, it is essential to sell yourself and ask yourself if that really is the company you want to work for.” Ogden also emphasized skills that are needed to succeed in the working environment, such as “soft skills” and leadership.

“We’recounted on to lead, so get to know your colleagues!” Ogden emphasized.

This topic ended with the fact that having these skills is not enough, and you need to master them.

In his presentation, Ogden highlighted that an internship is a job, and it is a job with ethics, which is just another part of which students have to be able to recognize.

“It’s never good enough!” he said, breaking down the subject into four broad keep-staying-together-your-results,” “hold peers accountable,” and “go where the action is.”

After going over key factors in succeeding in a job, the last part of the presentation contained frequently asked questions that represent common mistakes made by the young students in their first internship experiences.

Q & A’s

Q: Is it okay to send an informal email?

Ogden: Some of these things are not written down, but you should always be professional and consistent with your emails.

Q: What if there’s a disagreement with the manager?

Ogden: Talk to him, not with coworkers, because respect always matters.

Q: Workplace romance?

Ogden: Reality! Not a good idea, be aware of policies and don’t mix personal life with work.

Q: What to do to prepare for an interview?

Ogden: Review the material beforehand to be more comfortable, and try to be extra-tedious.

Q: What if my GPA is low?

Ogden: Work harder! They have limits to hire people, so do your best to be prepared.

Q: How to acquire that first opportunity to have valuable experience?

Ogden: Go to job fairs and talk to companies; it is the best way to get your foot in the industry for your first time.

By Andre Shibata

On February 11, 2013, TLSAMP had its monthly meeting with “Effective Values of Summer Internships” as the theme and the presence of DuPont’s engineer and recruiter Alfred Ogden. Ogden is well-known to TLSAMP since his presence is common in networking events, such as NSBE’s “Bowing with the Bosses.” He always tries to make an appearance to network with students looking for internship and co-op opportunities. However, this time, Ogden came to work a bit more on the students’ side of the table to talk about how you should prepare for acquiring an internship position and also how to impress and succeed in it.

To introduce his speech, Ogden first explained that practical experience is highly encouraged for those who want to acquire a job after college. Ogden himself has four internships before he became a well-known to TLSAMP since his presence is common in networking events, such as NSBE’s “Bowing with the Bosses.” He always tries to make an appearance to network with students looking for internship and co-op opportunities. However, this time, Ogden came to work a bit more on the students’ side of the table to talk about how you should prepare for acquiring an internship position and also how to impress and succeed in it.

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The 2012 Engineering Summer Diversity Programs

Dr. Chien-fei Chen, the Education and Diversity Co-Director of CURENT, and Dr. Syed Kamrul Islam oversea all five weeks with the assistance of Dr. Kevin Tomovic, Director of CURENT, Adam Hardbeck, and Rebecca Didham. Several PhD students also worked with the participants including Brad Trento, Terrence Randall, Liu Liu, and Geneva Doar. In addition, Miller Calaway (a middle school teacher) and Carolyn Flemings (a high school teacher) assisted with the MITES weeks.

All program projects were designed and implemented by the college’s NSF-funded Center for Ultra-wide-area Resilient Electric Energy Transmission Networks (CURENT), which emphasizes research on power transmission systems and sustainable energy. This allowed the participants to be heavily involved with our UT faculty involved with CURENT.

All five weeks closed out with an awards program, during which the corporate sponsors were recognized. We were excited to have Alan Hill, the Regional Director of External Affairs at AT&T Tennessee, speak at the AT&T sponsored MITES week, and to have Stephen Buckley, Senior Project Manager for Bechtel, speak at the Bechtel sponsored HITES week.

AT&T MITES 2012 participants engaged in CURENT Engineering Design Lab.

Cameron Bliss and Christine Garcia, INSTEP 2012 participants designing Solar Ovens for CURENT Engineering Design.

Stephen Buckley, Bechtel representative (third from left) joins counselors (in white shirts from L-R): Marquinta King, Michael Swift, Sam Littlejohn, Antwanette Anderson, A’Rica Mitchell, Lance Powell, Geoff Conklin and students (Orange shirts) in the 2012 Bechtel HITES program for the awards presentations.

Eric Rodriguez and Kalaf Levy, Bechtel HITES 2012 participants working on Wind Energy design project facilitated by CURENT.

Betsy White providing instruction to Bechtel HITES 2012 participants within Engineering Fundamentals class.
The National Society of Black Engineers (NSBE) recognized two University of Tennessee (UT), Knoxville, students with scholar awards for the 2013-2014 academic year at the organization's annual national convention held in Indianapolis, Indiana, on March 27-31, 2013. The awards were presented at NSBE's 16th Annual Golden Torch Awards event to honor exemplifying the organization's ideals of academic excellence, professional success and dedication to improve the African American community. DeAnna Walker, a civil engineering junior from Chattanooga, Tennessee, received the ExxonMobil Scholar award and Johnson Luma, a civil engineering sophomore from Memphis, Tennessee, received the NSBE Board of Corporate Affiliates National Scholar award. The UT chapter garnered regional recognition by receiving 2013 Medium Chapter of the Year. NSBE recognizes and celebrates the achievements of chapters that advance the goals of the society, contribute to the community and the engineering profession. NSBE awards chapters that have excelled in the academic enhancement of its members, in scholarship, leadership, and in the overall facilitation of programs and activities. The mission of NSBE is to increase the number of culturally responsible Black Engineers who excel academically, succeed professionally, and positively impact the community. NSBE is the largest student-run organization in the country with more than 29,000 collegiate, pre-collegiate, alumni, and lifetime members all over the globe.