The John D. Tickle Engineering Building: Bridge to a Bright Future for UT Engineering

The University of Tennessee
Knoxville
College of Engineering
Welcome to our latest issue of Tennessee Engineer. It is exciting to capture in print a summary of our yearlong celebration of the 175th anniversary of offering engineering courses at the University of Tennessee. This issue includes features on the opening/ribbon cutting of the new one hundred ten thousand sq ft John D. Tickle Engineering Building this fall (housing the Department of Civil and Environmental Engineering and the Department of Industrial and Systems Engineering), the celebration of the 40th anniversary of the college’s diversity programs, and the 175th anniversary event which were all held on October 4. We are deeply appreciative to John and Ann Tickle for the investments that they have made and continue to make within our college and university. They, along with others who have helped satisfy the funds for the building, as well as numerous other alumni and friends who have made investments in other buildings and programs, have provided a foundation for our college for years to come. We sincerely thank each and every one of you for helping us achieve our mission of providing the highest quality education to our students.

Based on the outstanding growth of our college, the strong demand for engineering graduates, the quality of our students, and the need for faculty/staff growth to meet those demands, FY13 was a pivotal year for our college during which the university administration submitted a proposal to the governor’s office to provide a matching request for recurring funds to be provided to the college to address faculty/staff needs and to provide the opportunity for the college to grow an additional twenty-five to thirty percent over the next five years. The state provided a $3 million increase in the college’s base budget effective July 1, 2013. This commitment is being matched by combined funds from the chancellor’s office, the college, and from the UT Foundation (development) over the next several years to allow the college to continue its forward momentum. In anticipation of these funds, the college was able to move forward with searches for new faculty and staff hires in FY13, many of who are now part of the College of Engineering team. We feature several of our most recently hired faculty in our newsletter. These commitments, which occurred in FY13, have provided us with the opportunity to initiate searches for twenty two new faculty lines starting this fall, ranging from lecturers to chaired faculty positions.

Our newsletter also features a number of faculty members, students and alumni—as examples of the team effort being made by everyone to help meet the vision of our college. Even as we celebrate, I have included our Vision Statement as we look to the challenges and excitement of the future. I hope you will join us in our efforts to achieve our vision.

Vision Statement
The College of Engineering is resolved to become one of the country’s top 25 public engineering educational institutions. To bring this vision to reality, our college is committed to these five charges:

1. Attaining national and international recognition among peer institutions for excellence in both research and teaching.
2. Assembling a dynamic body of faculty who exemplify excellence and innovation in the pursuit and delivery of knowledge that will perpetuate the highest standards of engineering education for future generations.
3. Graduating students who are well educated in technical knowledge, with solid communication and teamwork skills, who can compete successfully in the global business world and contribute significantly to the national base of engineering education and technology.
4. Investing strategically in the college’s most important resources—students, faculty and programs—through the vigorous acquisition of private gifts from individuals, corporations, and foundations.
5. Partnering with academic, industrial, and government entities that share and enhance the mission of the College of Engineering, so that our educational and collaborative efforts result in the maximum, positive economic impact locally, regionally, nationally, and globally.
The John D. Tickle Engineering Building is Dedicated

October 4, 2013

On the evening prior to the dedication ceremony of the John D. Tickle Engineering Building, an elegant pre-dedication affair took place on the seventh floor of the Neyland Stadium East Skybox, a location that boasted a magnificent view of the Tickle building, dramatically lit for the evening by Bandit Lites. The evening featured a reception, dinner, and a spectacular fireworks display from the top of the building. John D. Tickle, and his wife, Ann, whose generous gift to the university made the building possible, were the guests of honor. Tickle, a UT industrial engineering graduate who received his BS degree in 1965, is the chairman of Strongwell Corporation in Bristol, Virginia. Several Tickle family members were in attendance, and guests also included UT Chancellor Jimmy Cheek and Ileen Cheek; UT President Joe DiPietro; civil and environmental engineering student John Scobey; Dean Davis, and Tickle.

“The building is a beautiful addition to campus,” Tickle said in his remarks during the event. “This is a constantly forward-moving campus, and it’s going to continue moving forward.”

Guests at the dedication event included three former UT presidents: Ed Boling, Joe Johnson, and Jan Simek; as well as Chancellor Emeritus Bill Snyder; Congessman John J. Duncan and Senator Becky Duncan Massey; and representatives from professional engineering organizations, including Jim Froula, executive director emeritus, and Curt Gomulinski, executive director of Tau Beta Pi, the national engineering honor society, which is housed on the UT campus in the Dougherty Engineering Building; Marc Apter, president, the Institute of Electrical and Electronics Engineers; Larry Satterfield, vice president, the Institute for Nuclear Materials Management; and Stacey DelVecchio, president of the Society of Women Engineers. Numerous members of the college’s Board of Advisors were also in attendance. After the dedication, the Tickles, UT administrators, and honored guests cut the ribbon in front of the building and attendees then headed out to a reception on the building’s fourth floor. Open houses, demonstrations, and receptions took place in all of the seven engineering departments later that day, along with a networking luncheon hosted by student engineering organizations.

The dedication ceremony and related events were part of the college’s recognition of 175 years of engineering instruction at the University of Tennessee.

The $23.1 million, five-story, one hundred and ten thousand square-foot Tickle building houses the Department of Civil and Environmental Engineering and the Department of Industrial and Systems Engineering. It anchors a new gateway to campus and features a pedestrian bridge that includes fiberglass-reinforced large I-beams manufactured by Strongwell, Tickle’s company, which provides a closer link between Neyland Drive and the hill. The project began in December 2009, and the facility opened to students just prior to the fall 2013 semester.

John Tickle graduated from UT in 1965 with a bachelor’s degree in industrial engineering. He was president of Morrison Molded Fiber Glass Company in his hometown of Bristol, Virginia, before he purchased it and renamed it Strongwell in 1997. Today, Strongwell is a worldwide operation, with the Bristol division serving as its headquarters.

Ann Tickle graduated with a bachelor’s degree from the College of Education, Health, and Human Sciences. She hosted the popular syndicated TV show Romper Room—which predates Sesame Street—at a Bristol TV station from 1969 to 1976 and is extensively involved in philanthropic work.

In his remarks, Davis also recognized three couples who provided significant funding for the facility: Chad Hoidahly, chairman of the Bank of America and the former CEO of DuPont; and his wife Ann; Jim Gibson, former CEO of Pressure Tube Manufacturing LLC, and his wife, Jill; and Eric Zeanah, president of American Accessories International, a Knoxville-based company, and his wife, Elaine.

The Tickle Building has twenty-four laboratories, three conventional classrooms, one lecture hall, three student work spaces, and sixty-three faculty and graduate student offices. The laboratories include a high-bay area for structural testing and asphalt road surface testing as well as a geotechnical laboratory. The three classrooms promote collaborative learning through the use of movable chairs and Smart Boards.

“This building continues to fuel the excitement about our research and teaching programs,” Davis said. “Our college always aspires to be better and better. The Tickles’ continual support of and belief in UT allows us to keep moving forward and create initiatives that will benefit students for generations to come.”

The John D. Tickle Building was designed by Grieve Associates Architects of Knoxville, working in association with three engineering firms: Cannon & Cannon Inc. and IC Thomasson Associates Inc., both of Knoxville, and Ross Bryan Associates Inc. of Nashville. Messer Construction of Knoxville was the general contractor.

For more information about the building, visit engr.utk.edu/tickle.
COE staff members enjoy the networking luncheon after the Tickle building dedication.

Dr. Leon Tolbert (right), head of the Department of Electrical Engineering and Computer Sciences, EECS staff member Kevin Bogle, and student Mwamba Bowa wait to greet guests at the EECS reception after the dedication event.

Former UT presidents Joe Johnson and Ed Boling at the dedication ceremony for the John D. Tickle Engineering Building.

Dean of Engineering Wayne Davis (far right) and Chancellor Jimmy G. Cheek (right) present a special gift to Ann Tickle (far left) and John Tickle (left).

COE Board of Advisors Chair Dr. Bill Eversole and his wife, Jenny, view the ice sculpture of the John D. Tickle Building pedestrian bridge at the dinner held the evening before the dedication ceremony.

Guests enjoy refreshments after the dedication ceremony of the John D. Tickle Engineering Building.

A demonstration in the Tickle building's civil and environmental engineering concrete lab.

John Scobey, the student speaker at the dedication ceremony.
Dr. Sudarsanam Suresh Babu, an authority in the production, design, and performance of transforming materials into parts, has been named the eleventh University of Tennessee–Oak Ridge National Laboratory (ORNL) Governor's Chair. Babu will serve as Governor's Chair for Advanced Manufacturing and will be a professor based in the Department of Mechanical, Aerospace, and Biomedical Engineering (MABE). He will also have a joint professorship with the Department of Materials Science and Engineering, and as a Governor’s Chair he will have an appointment in the Energy and Environmental Sciences Directorate and in the Energy Materials Program at ORNL.

Babu, a former professor in the Welding Engineering Program in the Department of Materials Science and Engineering at The Ohio State University, directed a National Science Foundation Industry and University Cooperative Research Center focused on materials joining for energy applications. He joined The Ohio State University faculty in 2007 following several years at the Edison Welding Institute in Columbus, Ohio. Babu has also served in multiple roles at ORNL, including as a postdoctoral scholar, research professor, and member of both the research and development staff and the senior research and development staff. Babu’s research helps widen the scope of advanced manufacturing and additive manufacturing, also known as 3D printing, which is the process of adding successive layers to make a three-dimensional solid object from a digital model.

As Governor’s Chair, Babu will lead efforts to integrate the work of the University of Tennessee with the work of manufacturing research and design activities between UT, ORNL, and industry. In collaboration with industry, faculty, students, and researchers at ORNL’s Manufacturing Demonstration Facility, he will conduct basic and applied research focusing on advanced manufacturing processes, energy-efficient design and development, and understanding a product’s life cycle and the implications of design on the product’s purpose.

Babu received a bachelor’s degree in engineering from the PSG College of Technology in 1986, a master’s degree in technology and management from Madras University, Madras, India, and masters and doctoral degrees in materials science from UC Berkeley in 1989.

Dr. Ramki Ramesh

Dr. Ramki Ramesh, an authority in thin film technology used in solar panels and computer memory, has published more than four hundred papers and been cited more than thirty-five thousand times, making him one of the world’s most highly cited scientists.

Ramesh has been a driving force in moving innovation to the marketplace, most recently at Sunshot and as director of the Berkeley Nanoscience and Nanotechnology Institute and the Singapore-Berkeley Research Institute for Sustainable Energy. Prior to his directorship, Ramesh served as an associate professor at the University of Maryland and a member of the technical staff at Bell Communications Research.

Ramesh received a bachelor’s degree in chemistry in 1980 from Madras University, Madras, India, and masters and doctoral degrees in materials science from UC Berkeley in 1989. Ramesh was elected to the National Academy of Engineering in 2011 and is a recipient of the 2011 National Inventors Hall of Fame Award. Ramesh was also named the first African-American IBM Fellow in 1995. His long list of honors and awards includes the University of Tennessee’s highest honor, the Distinguished Alumni Award, in 2012; the National Institute of Science (NIS) Outstanding Scientist Award in 2006; and the UT College of Engineering’s Nathan W. Dougherty Award in 2005; membership in the prestigious National Academy of Engineering in 2001; the Black Engineer of the Year Award from the Carair Communications Group in 2000; Distinguished Golden Torch Award, National Society of Black Engineers, 1999; and induction into the National Inventors Hall of Fame in 1997.

Dean Named as Fisher Distinguished Professor

Dr. Mark Dean (BS/EE ’79), an IBM Fellow and the company’s former vice president of Technical Strategy and Worldwide Operations, has been named as the Fisher Distinguished Professor with a tenured appointment in the Department of Electrical and Engineering and Computer Science.

Dean, who received a PhD in electrical engineering from Florida Atlantic University and his PhD from Stanford, has had a long and illustrious career at IBM, where he began working with personal computers as a chief engineer at IBM in Boca Raton, Florida. Dean holds three of the original nine patents on the standard IBM personal desktop computer that serves as a basis for all personal computers, and has more than forty patents pending.

Dean served in numerous executive positions during his tenure at IBM, and was named the first African-American IBM Fellow in 1995. His long list of honors and awards includes the University of Tennessee’s highest honor, the Distinguished Alumni Award, in 2012; the National Institute of Science (NIS) Outstanding Scientist Award in 2006; and the UT College of Engineering’s Nathan W. Dougherty Award in 2005; membership in the prestigious National Academy of Engineering in 2001; the Black Engineer of the Year Award from the Carair Communications Group in 2000; Distinguished Golden Torch Award, National Society of Black Engineers, 1999; and induction into the National Inventors Hall of Fame in 1997.

He also received the US Department of Commerce’s Ronald H. Brown American Innovators Award and is a Institute of Electrical and Electronics Engineers (IEEE) Fellow and a National Society of Black Engineers (NSBE) Distinguished Engineer. Dean was also a longtime member of the UT College of Engineering’s Board of Advisors.

Two COE Professors Receive NSF CAREER Awards

Dr. Jason P. Hayward, an assistant professor in the Department of Electrical and Engineering, and Dr. Jeffrey A. Rainbolt, an assistant professor in the Department of Materials Science and Engineering, have both received the Early Career Research Program Awards (CAREER) from the National Science Foundation.

The CAREER award is the NSF’s most prestigious honor for junior faculty, recognizing their excellence in research, education, and the integration of education and research within the context of the mission of their organizations.

Hayward’s award includes total funding of $750,000 over five years to develop the research outlined in his proposal “Neutron Scattering Instrumentation and Development for High Spatial and Temporal Resolution Imaging at Oak Ridge National Laboratory.”

Rainbolt’s award includes a $47,000 grant over five years for his research proposal “Research and Education on Control of Human Movement.” The CAREER project will allow Rainbolt and his graduate students to develop scientific tools and simulations to improve rehabilitation for stroke victims.
Dean Wayne T. Davis has recently named two new department heads for the College of Engineering.

Dr. John E. Kobza, previously the interim Department Chair of Industrial Engineering and Senior Associate Dean of the Edward E. Whitacre College of Engineering at Texas Tech University in Lubbock, Texas, is the new professor and department head of the Department of Industrial and Systems Engineering (ISE).

Kobza received his BS degree in electrical engineering from Washington State University, his MS degree in electrical engineering from the University of Southern Mississippi and his PhD in industrial and systems engineering from Virginia Polytechnic Institute and State University.

He began his career as an assistant professor in the Department of Industrial and Systems Engineering at Virginia Polytechnic Institute and State University, then joined the Department of Industrial Engineering at Texas Tech as an associate professor and was promoted to full professor in 2006. He was the associate department chair from 2006-2008 and was named senior associate dean in 2009. He served as interim department chair beginning in 2012. Kobza also was an instructor for the Department of Industrial and Systems Engineering (MABE).

Kobza received the Texas Tech Alumni Association New Faculty Award in 2003; he was chosen as one of three researchers to represent Texas Tech at “Research Education for Texas,” an engineering and technology event in Austin in 2003; and he was inducted into the Texas Tech University Teaching Academy in 2002. He also received the Texas Tech Industrial Engineering Professor of the Year Award, presented by the Texas Tech chapter of the Institute of Industrial Engineers, in 2000.

Kobza has provided expertise for numerous media reports and articles with outlets including Fox News, Dateline NBC, the British Broadcasting Corporation, National Public Radio, Newsweek, USA Today, the Daily Mail. He is a Fellow of the Institute of Industrial Engineers, the Institute for Operations Research and the Management Sciences, the Institute of Electrical and Electronic Engineers Communication Society, and the American Society for Engineering Education. He is a licensed Professional Engineer in the state of Texas.

Dr. Matthew M. Mench, the UT Condra Chair of Excellence in Engineering from Pennsylvania State University.

Mench received his BS, MS, and PhD degrees, all in mechanical engineering, from Pennsylvania State University.

He began his career as an assistant professor and research associate in the Department of Mechanical Engineering at Pennsylvania State University. He was promoted to associate professor a year early in 2007. Mench joined the faculty of MABE at UT in 2010 as a professor and the Condra Chair of Excellence in Energy Storage and Conversion and a professor in mechanical engineering at the University of Tennessee, is the new department head of the Department of Mechanical, Aerospace, and Biomedical Engineering (MABE).

Mench was awarded a National Science Foundation Early Career Development CAREER Award in 2007 to support his research on fuel cells. He is the author of the textbook Fuel Cell Engineering, over one hundred research publications, and holds several patents. His research work has been supported by numerous industrial and government agencies.

In 2013, Mench was named as a UT College of Engineering Research Fellow. He received the Premier Teaching Award in 2009 and the Outstanding Teaching Award in 2006 from the Penn State College of Engineering.

Mench also serves as the executive vice president of the International Society for Hydrogen Energy and is an associate editor and a former member of the editorial board of the International Journal of Hydrogen Energy.

Mench is a Fellow of the American Society of Mechanical Engineers. He is also a member of the Electrochemical Society and the American Society for Engineering Education.

Both appointments were effective August 1, 2013.

COE Faculty Receive B. Otto and Kathleen Wheeley Award

Dr. Jack Dongarra, a distinguished professor in computer science, is designing software that will be critical in making the next generation of supercomputers operational. Supercomputers have been tackling the world’s most pressing challenges, from sequencing the human genome to predicting climate changes, for years. So far, though, the power of these machines has been limited. The next generation of supercomputers, called exascale (a quintillion floating point operations per second), holds promise for solving some of the most demanding problems in numerical modeling.

Dongarra recently received a $1 million grant over three years from the US Department of Energy to find a solution. His project, the Parallel Runtime Scheduling and Execution Control (PurseC), will address the critical situation facing the supercomputing community due to the introduction of more complex supercomputer designs.

The current generation of supercomputers has processor counts in the millions. The exascale computers will have roughly a billion processors. In addition, the general makeup of the machines will differ dramatically through the use of multiple central processing units and hybrid systems to overcome barriers limiting today’s supercomputers. These barriers include large amounts of heat and power consumption, leakage voltage, and a limited bandwidth of data through the pins on a single chip.

The goal is to reach exascale by 2020. There are a number of initiatives to develop supercomputers to provide a broad range of industries, including energy, pharmaceutical, and transportation, the ability to more quickly engineer superior new products, which will translate into better consumer technology.

Dongarra is also developing an algorithm to overcome a reliability problem associated with the increasing number of processors.

In addition to PurseC, Dongarra is part of an international group working to evaluate potential rewards and obstacles in designing exascale supercomputers.

Workshops held at Oak Ridge National Laboratory and Extreme-Scale Computing, hosted by the National Institute for Computational Sciences, are held around the world annually. To learn more, visit ccs.utk.edu/purseC. For more about PurseC, visit ccs.utk.edu/purseC.

UTRF President and CEO Dave Washburn (left) and Stephen Wheeley (right) present J. Douglas Birdwell and Tzeewee Wang with the B. Otto and Kathleen Wheeley Award for Excellence in Technology Transfer.

The University of Tennessee Research Foundation (UTRF) recognized many outstanding university researchers on September 20, 2013. The UTRF presented the B. Otto and Kathleen Wheeley Award for Excellence in Technology Transfer to Dr. J. Douglas Birdwell, a professor in the Department of Electrical Engineering and Computer Science, and Dr. Tzeewee Wang, an associate professor emeritus in the Department of Chemical and Biomolecular Engineering. The award is a cash prize given to the member of the UT faculty who has had a major impact on the tech transfer success of the university.

Birdwell has been a faculty member at UT since 1978 and is currently the director of the Laboratory for Information and Technology. He has over one hundred publications and has directed over $10 million in sponsored research projects at UT. Wang joined the College of Engineering faculty in 1989. She has authored over fifty publications, presentations, and peer reviewed journal articles and has directed $7 million in sponsored research projects at UT. Wang retired from UT in December of 2012 but continues to be active with her research team.

Together, Birdwell and Wang have twenty-three issued patents and licensing agreements on their technologies that have generated $132,402 in revenue.

“The work of Drs. Birdwell and Wang and their team has had a tremendous impact on the ability of law enforcement agencies around the world to exchange and compare forensic DNA evidence to help solve crimes,” said David Washburn, president and CEO of the UTRF. “Workshops, called Big Data and Extreme-Scale Computing, DNA forensics analysis, and advanced DNA database search techniques and will also help in identifying missing persons and victims of disasters and crime.”

For more information, visit utrf-tennessee.edu/ttech transfers/news/innovation-11.html.

ECE Professor Leads Two High Profile Supercomputer Projects

Dr. John E. Kobza, previously the Interim Department Chair of Engineering at the US Military Academy at West Point from 2005-2006 and was a visiting professor in the Department of Systems Engineering at the US Military Academy at West Point from 2005-2006.

Kobza received his BS degree in electrical engineering from the University of Texas at Austin.

He began his career as an assistant professor in the Department of Industrial and Systems Engineering at Virginia Polytechnic Institute and State University, then joined the Department of Industrial Engineering at Texas Tech as an associate professor and was promoted to full professor in 2006. He was the associate department chair from 2006-2008 and was named senior associate dean in 2009. He served as interim department chair beginning in 2012. Kobza also was an instructor for the Department of Industrial and Systems Engineering (ISE).

Lubbock, Texas, is the new professor and department head of the Department of Industrial Engineering at the US Military Academy at West Point from 2005-2006 and was a visiting professor in the Department of Systems Engineering at the US Military Academy at West Point from 2005-2006. Kobza received his BS degree in electrical engineering from Washington State University, his MS degree in electrical engineering from the University of Southern Mississippi and his PhD in industrial and systems engineering from Virginia Polytechnic Institute and State University.

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Mench is a Fellow of the American Society of Mechanical Engineers. He is also a member of the Electrochemical Society and the American Society for Engineering Education.

Both appointments were effective August 1, 2013.
Gift Establishes UT Joint Faculty Fellowships of Business and Engineering

A major gift from two University of Tennessee graduates has established the first-ever joint faculty positions between the colleges of engineering and business administration.

A gift from Ralph (BS/EE ’70, MBA ’75) and Janet Heath through the Heath Family Charitable Fund in the Community Foundation of North Texas has established the Heath Endowed Faculty Fellowship in business and engineering with the goal of enhancing the relationship between the two fields.

Chanka Edirisinghe, professor of statistics, operations, and management science, is the Heath Faculty Fellow in the College of Business Administration. Rupy Sawhney, a professor of industrial and information engineering, is the fellow in the College of Engineering.

Heath recently retired as president of Lockheed Martin Aeronautics. He is a founding and current member of the College of Business Administration’s Aerospace and Defense Advisory Board, a lifetime member of the college’s Advisory Council to the Dean, a member of the College of Engineering’s Board of Advisors, and a recipient of UT’s Alumni Professional Achievement Award. He inspired the College of Business Administration to create its unique Aerospace and Defense MBA Program.

“The Heath Fellow program provides a unique opportunity to identity and encourage interaction and collaboration between our two colleges,” said Wayne Davis, dean of the College of Engineering.

Janet Heath graduated in 1976 with a degree in food systems administration through the university’s registered dietitian program. She enthusiastically supports the interaction between business and engineering and collaborated with her husband on the proposal for the joint faculty fellowship.

Edirisinghe is the director of the management science doctoral program, co-director of the Business Analytics Forum, and director of the business college’s Financial Engineering Research Laboratory. He specializes in operations research/management science with applications to financial investments, project management, supply chain coordination, reservoir scheduling, and fleet routing. He is the developer of the financial trading strategy optimization and simulation software called MSOFT and a recipient of the prestigious 2009 Citation of Excellence Award by Emerald Management Reviews.

“There is great wisdom, foresight and creativity in this gift from Ralph Heath, born from his lifetime of management experience in both engineering and business,” said Steve Mangum, dean of the College of Business Administration. “The Heath Faculty Fellowship program provides specific opportunities for two leading faculty members from these two colleges to permeate barriers, be innovative, and initiate constructive dialogue and programming.”

Sawhney is a faculty member of the Center for Interdisciplinary Research and Graduate Education, a joint effort between UT and Oak Ridge National Laboratory focused on renewable energy; a 2006 Boeing Welliver Fellow; and a recipient of the Lean Fellowship since 1998. He specializes in the development of supply chain management models and enterprise improvement strategies, and integrating reliability into lean systems. Through his Lean Fellowship, he has worked to develop new methodologies and tools to make US manufacturing more competitive. He has worked with more than one hundred fifty industrial and governmental organizations, including UT.

“The Heath Fellowship program provides a unique opportunity to identify and encourage interaction and collaboration between our two colleges,” said Wayne Davis, dean of the College of Engineering.

NE Department Head to Serve as NEDHO Vice Chair

Dr. J. Wesley Hines, the Charles F. Postle Distinguished Professor in Nuclear Engineering and head of the UT Department of Nuclear engineering has been named the vice chair/chair elect for the Nuclear Engineering Department Head Organization (NEDHO). NEDHO is an allianc of heads (chairs) of nuclear engineering departments and programs in North America. NEDHO was formed to provide a forum for discussion, coordination, and collaboration on issues facing nuclear engineering departments and programs in North America.

Hines will serve as vice chair beginning in 2017 and will be the chair of the organization in 2019.

EECS Professor Wins 2012 IBM Faculty Award

Dr. James Plank, a professor in the Department of Electrical Engineering and Computer Science, is the recipient of a 2012 IBM Faculty Award. The thirty thousand dollar award is highly competitive and recognizes the quality of an academic program and its importance to industry.

The award originated out of a collaboration with Jim Hafner, a researcher at IBM, with whom Plank worked on fault-tolerant storage systems. The project is to enrich the failure handling capabilities of Key-Value stores, which allow systems like Facebook and Twitter to store and propagate the millions of simultaneous updates that they get from their millions of distributed users. Plank will be using the award to fund student research.

“The Cook-Eversole Professorship allows me to expand my research in the area of robotics and artificial intelligence. It also offers an opportunity to provide both undergraduate and graduate students with hands-on projects that will enhance their engineering education experience both in and out of the classroom.”

Dr. Mongi Abidi
Cook-Eversole Professor
Department of Electrical Engineering and Computer Science

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Dr. James Plank
The high-caliber faculty roster in the College of Engineering (COE) continues to grow, steadily enhancing the college’s opportunities for teaching and research. More than two dozen new professors have joined the COE community in 2018. This is also the college’s most diverse group of new faculty hires.

**Department of Chemical and Biomolecular Engineering**

Dr. Steven M. Abel
Assistant Professor
PhD: Stanford University

Research areas: Additive group applies theoretical and computational methods to investigate fundamental problems in cell biology and immunology. A motor focus is on the development of a multi-scale, spatial-temporal understanding of cellular processes involving the interplay of signal transduction networks, membranes, and the cytoskeleton.

Dr. S. Michael Kilbey II
Professor
Jointly appointed in the Department of Chemistry
PhD: University of Minnesota

Research areas: Synthesis and characterization of polymeric materials used for surface and interface engineering, intrinsic link between assembly, structure and properties of ultrathin polymer films at surfaces and of molecular assemblies in solution.

**Department of Civil and Environmental Engineering**

Dr. Joseph Amoah
Lecturer
PhD: Florida A&M University

Research areas: Sustainable water supply infrastructure GIS, watershed and floodplain management, water quality modeling, low impact design, urban storm water modeling, climate change on water systems, green water infrastructure planning and optimization.

Dr. Kimberly Carter
Assistant Professor
PhD: University of Arizona

Research areas: Analysis of trace metal content of synthesis gas derived from coal, ignition and adsorption of perfluorinated carbon and technology for remediation of brines spills with hay, correlation of plant growth with brine content in soil.

Dr. Jon Hathaway
Assistant Professor
PhD: North Carolina State University

Research areas: Innovative stormwater management, green infrastructure, low impact development, ecological engineering, facial redox bacteria/pathogens, surface water quality, natural treatment systems.

Dr. Asad Khattak
Boeing Professor of Civil & Environmental Engineering
PhD: Northwestern University

Research areas: Intelligent transportation systems, transportation safety, sustainable transportation.

Dr. Timothy Trustor
Assistant Professor
PhD: University of Illinois at Urbana-Champaign

Research areas: Computational mechanics, interface mechanics, composite material modeling, stabilized methods, high performance computing.

**Department of Electrical Engineering and Computer Science**

Dr. Daniel Costinett
Assistant Professor
PhD: University of Colorado, Boulder

Research areas: Novel materials for electrochemical energy applications, nanoscale confinement and interfacial effects in soft materials, diffusion in soft condensed matter, and broadband dielectric spectroscopy and its applications.

Dr. Kimberly Carter
Assistant Professor
PhD: University of Arizona

Research areas: Analysis of trace metal content of synthesis gas derived from coal, ignition and adsorption of perfluorinated carbon and technology for remediation of brines spills with hay, correlation of plant growth with brine content in soil.

Dr. John Kobza
Assistant Professor
University of Texas at Austin

Research areas: Analysis of trace metal content of synthesis gas derived from coal, ignition and adsorption of perfluorinated carbon and technology for remediation of brines spills with hay, correlation of plant growth with brine content in soil.

Dr. Maulik Patel
Assistant Professor
PhD: University of Illinois at Urbana-Champaign

Research areas: Stochastic processes, quality, systems involving risks and uncertainty.
Faculty Focus: Dr. Brian Wirth

Dr. Brian Wirth joined the College of Engineering to focus on computational nuclear engineering as the ninth University of Tennessee and Oak Ridge National Laboratory (ORNL) Governor’s Chair in the summer of 2010. He came to UT from the University of California, Berkeley, where he was a tenured faculty member with a joint appointment at Lawrence Berkeley National Laboratory.

Wirth’s main area of research involves combining computational materials modeling with select experimental characterization techniques to better understand the changes that occur in materials used in extreme environments, such as in current nuclear power plants or future fusion reactors.

“...I believe that we have been very successful in working with experimental collaborators to better understand the composition of nanometer-sized, copper-rich precipitates that are responsible for reactor pressure vessel embrittlement and determining the safe operating lifetime of our current fleet of nuclear reactors,” said Wirth.

Students at both the undergraduate and graduate level are actively involved with Wirth in this investigation into understanding the behavior of materials over time.

“I think research and teaching are inherently intertwined,” said Wirth. “I strive to provide a rigorous theoretical foundation in my teaching, and then encourage dialogue and questioning of our understanding.”

In class, Wirth likes to call on students as much as possible to encourage dialogue, and he also likes to let them know that there are new answers to explore.

“It can be humbling to realize how little we know, but also incredibly satisfying to ask questions about why a material performs as it does, and then devise the research to provide the answers. I hope that I can teach students how to approach the answer that, ‘I don’t know, but this is how I would attack the problem’,” Wirth said.

In addition to working towards a three-dimensional, engineering scale assessment of reactor pressure vessel embrittlement, Wirth and his group are also involved within the Consortium for Advanced Simulation of Light Water Reactors (CASL) to develop highly accurate, three-dimensional models of nuclear fuel performance. Another recently initiated project—jointly funded by the Department of Energy (DOE) Office of Advanced Scientific Computing Research (ASCR) and the Office of Fusion Energy Sciences (OFES)—is an effort to simultaneously develop “bottom-up” and “top-down” computational models of the performance of materials subjected to plasma surface interactions.

“I believe this last effort will help lead us to the practical realization of fusion as an energy source,” said Wirth.

Outside of his research pursuits, Wirth and his family—his wife, Christine; their two sons, Alden and Cooper; and their two dogs, Roco and Ruby—stay in motion around the Knoxville area—hiking and visiting the nearby mountains, and watching and participating in sports. He is also driven by the future opportunities for the university, COE, and nuclear engineering.

“I am thrilled to be part of the rapid growth and development within the Department of Nuclear Engineering,” said Wirth. “I now believe that we are arguably one of the top three or four departments of nuclear engineering in the country, and it is my goal for us to be the top department, and be the place that the nation looks to for answering critical questions about the safety and sustainability of nuclear reactors, and driving the future research enterprise to ensure a sustainable future growth for nuclear power, and the many aspects of nuclear science and engineering.”
Research Feature: Dr. Mingjun Zhang

Dr. Mingjun Zhang, an associate professor in the Department of Mechanical, Aerospace, and Biomedical Engineering has a long-term goal for his research: to develop fundamental theory and engineering principles for building nanoparticle-based systems that have sensing, actuation, and decision-making capability for disease diagnosis and treatment. To address the challenges for small-scale propulsion, he also works on bioinspired energy-efficient propulsion systems for robotics.

“Two fundamental questions to be addressed in my research are related to healthcare and energy utilization,” Zhang said. “One is about characterization and fabrication of naturally occurring/bioinspired nanoparticles. The other is the development of bioinspired energy-efficient aquatic propulsion systems.”

Zhang’s initial interest in the clinging properties of the English ivy plant inspired some of the research on nanoparticle-enhanced adhesion. He, along with colleagues, developed an approach to isolate, purify, and characterize nanoparticles secreted from adventitious roots of the English ivy. He sees applications from this discovery as having merit for military and medical applications.

Zhang was also inspired by nature’s design principles of energy-efficient swimming and robust attachment mechanisms from several microorganisms, employing principles learned from biology for innovation in propulsion system design for underwater unmanned vehicles and robots.

“We have made several original discoveries about naturally occurring nanoparticles, and biological propulsion mechanisms for microorganisms,” Zhang said. “In 2008, we discovered that the bio-secreted nanoparticles for surface attachment, and that the bio-nano-propulsion might be used for sunscreen to replace metal-based nanoparticles. In 2010, our group found that the highly elastic adhesive secreted from sunflower plants could be used to create nano-scaffolds for tissue engineering. In 2011, we discovered the unique multiflagella-based swimming mechanism of Giardia, and proposed a bio-inspired energy-efficient propulsion mechanism for micro/nano-robots. In 2012, our group discovered that the curved swimming trajectories were more energy efficient than linear trajectories for whirligig beetles, which explains why they are more often observed in nature. Recently, we discovered that the nanoparticles secreted from a carnivorous fungus can stimulate immune response, and kill tumor cells. We have developed a sitting drop culture method to massively produce the fungus-based nanoparticles. We have also developed an approach to produce tea nanoparticles from tea leaves for drug delivery and therapeutics.”

Zhang’s research has drawn increasing recognition internationally. Results from his research have been well archived in leading journals, including Proceedings of National Academy of Sciences, Advanced Functional Materials, Journal of the Royal Sociey Interface, PLoS Computational Biology, Nano Letters, Nanomedicine, Journal of Nanotechnology, Journal of Biomedical Nanotechnology, and many others. His projects on naturally occurring and bioinspired nanoparticles are supported by three National Science Foundation (NSF) Awards, one Army Research Office (ARO) award, and an ARO Defense University Research Instrumentation Program (DURIP) award. His research on micro/nano-scale propulsion was sponsored by the prestigious Office of Naval Research (ONR) Young Investigator Program (YIP) award and a new ONR DURIP award in 2013.

While the recognition and funding support are gratifying, it is also extremely important to Zhang that students are also included in all of his research.

“Undergraduate and graduate students are heavily involved in research projects in my lab. Zhang said. “In graduate, each funded project in my group has at least one undergraduate student contributing to experimental studies or computer simulation.”

UT students will soon get the chance to gain practical engineering analysis skills using technology that companies worldwide rely on to design sophisticated products for aerospace, mechanical, biomedical, and other industries.

The classroom enhancements are made possible through an in-kind software grant with a commercial value of $2.7 million from Siemens PLM Software. The product lifecycle management (PLM) software helps users make better products using complex modeling technologies. The in-kind grant includes Femap® software with NX™ Nastran® software for finite element modeling. Students in Department of Civil and Environmental Engineering Assistant Professor Stephanie TerMaath’s three classes will use the software to investigate fundamental concepts in structural engineering; for example, how applying different boundary conditions such as loads and supports to a part affects structural performance.

“This technology allows class to be very hands-on,” said TerMaath. “We can interactively investigate customizable problems very quickly instead of me just showing them pictures in a PowerPoint presentation. Use of this software provides a much improved learning environment by providing the flexibility to explore an unlimited number of configurations in real time based on student questions.”

The software will impact close to a hundred students through TerMaath’s classes and research, and is available through UT’s app for anyone at the university who wants to use it.

TerMaath, who used the technology as an engineer at Boeing, Lockheed Martin, and Applied Research Associates, said this grant gives students access to technology that companies around the world use every day to develop innovative solutions in a wide variety of industries, including automotive, aerospace, defense, machinery, medical, and electronics.

Training with this software also makes students highly marketable for advanced technology jobs.

“This software is very user-friendly and is widely used by industry,” said TerMaath. “Codes can be very frustrating to learn, and students end up spending more time figuring out which button to push instead of working on their analysis. This software eliminates that problem and allows us to focus on the engineering fundamentals.”

TerMaath also will use the PLM software for her own multidisciplinary research in computational structural mechanics which spans problems in civil, aerospace, mechanical, and biomedical engineering.

Siemens’ academic program delivers PLM software technology to more than a million students from grade school to graduate school around the world each year. Siemens PLM Software is dedicated to equipping today’s students with the knowledge and skills necessary to serve in the next generation of engineers. UT serves a key role in filling the science, technology, engineering, and mathematics (STEM) job skills gap and producing highly qualified future employees,” said Bill Boswell, senior director, partner strategy, Siemens PLM Software.

Siemens PLM Software is a leading global provider of product lifecycle management software and services with seven million licensed seats and more than seventy-one thousand customers worldwide. Femap and NX are trademarks or registered trademarks of Siemens Product Lifecycle Management Software Inc. or its subsidiaries in the United States and in other countries. Nastran is a registered trademark of the National Aeronautics and Space Administration. For more information, visit the Siemens website at http://www.siemens.com/entry/cc/en/.

Special Feature

Department of Civil and Environmental Engineering Receives In-Kind Software Grant from Siemens PLM Software

Students (front row, left to right) Yuan Jing, Jonathan Weigand, Geoff Goodmiller, and (standing, left to right) Jacob Holloway, along with Dr. Stephanie TerMaath, work with the new Siemens PLM Software.
Global Initiatives: Engineering Students Travel to Costa Rica, Madrid, and Peru

Outreach

Three trips organized by the College of Engineering (COE) are mentioned in the text. The trips included a visit to the Irazu volcano in Costa Rica, a visit to Madrid in Spain, and an Alternative Summer Break trip to Cuzco, Peru.

_Cultural Activities in Costa Rica included a walking tour of Cartago, which is the home of the most significant basilica in Central America, the Basílica de Nuestra Señora de los Ángeles (Our Lady of the Angels Basilica); a visit to the artisans’ market and produce/meat market; a dance class; two Spanish language lessons; and a visit to the Irazu volcano and a trip to the rain forest of the Tapanti National Park._

_Outreach Director Dr. Roger Parsons (far left) and EECS professor Dr. Michael Berry (left) with the Engineering in London student group._

_Students Enjoy Faculty-led Study Abroad Programs_

_Students enjoyed faculty-led study abroad programs at the University of Cape Town, University of Leeds, and University of Manchester._

_For 2013, Engineering in London combined two programs from the summer of 2012, with students taking two out of three course offerings in a five-week format. Courses were Development of Computing, taught by Dr. Michael Berry, professor in the Department of Electrical Engineering and Computer Science; Thermodynamics, taught by Dr. Roger Parsons, director of Engineering Outreach; and an electrical engineering course, Electrical Components, taught by Dr. Paul Crilly, associate professor in the EECs department._

_Students experienced multiple trips to sites related to the Industrial Revolution and the development of computing, providing context and enrichment opportunities._

_“The London trip is amazing,” said James Allred, a junior in computer science. “There is a lot to experience and discover.”_

_A new course for 2013 was Sustainable Energy Engineering, taught by Dr. Madhu Madhukar, an associate professor in the Department of Mechanical, Aerospace, and Biomedical Engineering (MABE) and based in Dublin, Ireland. Ireland produces a significant portion of its energy from wind turbines, so this class visited wind farms as part of the curriculum._

_“This was a great opportunity to see this important technology up close and actually interact with the people who implemented it,” said Madhukar._

_In another new trip for 2013, Dr. Wes Hines, Charles P. Postelle Professor and head of the Department of Nuclear Engineering, led twelve students on a tour of nuclear facilities in Prague, Czech Republic, during a mini-term program abroad in May of 2013._

_Students Enjoy Faculty-led Study Abroad Programs_
When it comes to the University of Tennessee College of Engineering, Dr. Wayne Coleman (PhD/NE’69) and his wife Barbara have always generously served and promoted the mission of the college. As a student, Coleman was president of the Student Government Association, a member of Tau Beta Pi Honor Society, Sigma Chi Fraternity, and a Torchbearer (by the way, he also played on the football team). Today, he serves as a member of the College of Engineering’s Board of Advisors. The Colemans’ Volunteer spirit was apparent again when they hosted a group of alumni, students, and faculty for a reception at their home in Solana Beach, California, on the evening of May 22, 2013. The event was an opportunity for UT engineering alumni in the San Diego area to gather and connect. It was also an opportunity for those alumni to meet a team of talented students and faculty who had been participating in the prestigious EcoCAR2 competition in nearby downtown San Diego.

The setting of the reception on the back lawn of the Coleman’s home provided a spectacular view of the Pacific Ocean. After the guests had arrived, everyone mingled and were introduced to each other, then settled down to a delicious outdoor dinner. Alumni who attended the reception included Dr. Calvin Burgart (PhD/NE’69) and his wife Michelle (JD/Law’77), Howard Chambers (BS/ME’64), Richard Rosencrans (BS/ME’64) and his wife Ellen, and John Stevenson (MS/EE’60) and his wife Dalys. Future UT engineering student Stephen Kwan and his mother MS/EE’60 Rosenberg (JD/Law’71, BS/ME’64) also attended the reception. After dinner, Dr. Butch Irick of the Department of Mechanical, Aerospace, and Biomedical Engineering, who is a faculty advisor to the UT Knoxville EcoCAR2 team, spoke about the competition and his team’s role in it:

“The competition’s mission is a vital one: offer an unparalleled hands-on, real-world experience to educate the next generation about the competition and his team’s role in it.

The competition’s mission is a vital one: offer an unparalleled hands-on, real-world experience to educate the next generation about the competition and his team’s role in it. The competition challenges fifteen universities across North America to reduce the environmental impact of a Chevrolet Malibu without compromising performance, safety, and consumer acceptability,” said Irick.

For COE Supporters Wayne and Barbara Coleman

Welcome EcoCAR2 Team to California

College of Engineering

Spring 2013 Commencement

The College of Engineering Spring 2013 graduation ceremony took place on Wednesday, May 8, 2013, with two hundred eighty-four engineering graduates participating in the ceremony. Approximately two thousand six hundred parents, friends, and relatives attended the event, which took place in Thompson-Boling Arena on the UT-Knoxville campus at 11:30 a.m.

Dr. Wayne T. Davis, dean of engineering, and Dr. Jimmy G. Cheek, University of Tennessee chancellor, led the academic procession that signaled the beginning of the ceremony. The procession included the UT president, associate deans, department heads, and faculty representatives.

Dwight Hutchins, the Global Managing Director of Washington, D.C.-based Accenture’s Health and Public Service Strategy practice, was the ceremony’s keynote speaker. Hutchins, a 1986 UT chemical engineering alumnus, leads project teams around the world at Accenture, helping clients define their strategy, reorganize, increase effectiveness, reduce costs, and transform their operations to become high performing public sector organizations.

Hutchins received an MPA from the John F. Kennedy School of Government at Harvard University, an MBA in marketing and finance from the J.L. Kellogg Graduate School of Management at Northwestern University, and a BS in chemical engineering from here at the University of Tennessee. He co-oped at the Dupont plant in Old Hickory, Tennessee, and after graduating from UT, he began working at Procter and Gamble in Jackson, Tennessee. Prior to Accenture, Hutchins consulted with McKinsey & Company and Bain & Company, focusing on marketing strategies for Fortune 500 banks and business products companies.

Hutchins joined Accenture seventeen years ago to build a strategy practice focused on improving the performance of government agencies. Over the course of building this practice he promoted research across a number of areas, including homeland security, healthcare reform, economic development, and student loans.

In healthcare, he worked with the Commonwealth of Massachusetts to develop its strategy and performance plans and assisted with the launch and improvement of their Health Insurance Exchange, an agency that has served as a model for national healthcare reform.

At the federal level, Hutchins has led teams that have developed and implemented strategies to increase international trade and reduce delays at the border while increasing security. Specifically, he helped the Department of Homeland Security develop its plan for protecting US ports from threats and risks, including those posed by terrorists and weapons of mass destruction. This plan became part of the White House’s Homeland Security Council policy and was hand-delivered by the department to every member of Congress. Internationally, he has led efforts for infrastructure investment in developing countries on behalf of the US as well as the World Bank and the United Nations.

Hutchins also led the initial phases of transforming the Federal Student Aid (FSA), the US Department of Education’s one hundred billion per year program, into a world-class financial services operation and the government’s first performance based organization (PBO). Accenture designed, built, and runs the system that originates all the federal grants and loans in the country. The Congressional Budget Office has determined that this service provided via the department versus the banks saves taxpayers over $60 billion while improving services to students.

Dr. Joseph Hutchins, president of the UT System, was also a special guest speaker at the event. He congratulated the graduates on their achievements, wished them a successful career, and expressed pride in the College of Engineering’s accomplishments.

The college’s top students, Jordan Richard Kreitzman, an aerospace engineering major, and Scott Michael Strickler, a biomedical engineering major, were recognized. Three National Academy of Engineering (NAE) Grand Challenge Scholars were also saluted during the ceremony for completing additional challenging academic requirements as stipulated by NAE: Morgan...
The College of Engineering celebrated 175 years of engineering instruction at the University of Tennessee with a gala event on Friday, October 4, at the Knoxville Convention Center. A crowd of over five hundred and fifty engineering alumni, faculty, and staff gathered to recognize this significant milestone.

At the elegant reception, guests enjoyed the opportunity to visit with all seven COE department heads and connect with former classmates and professors. Tennessee Governor Bill Haslam dropped by and greeted several attendees, including John and Ann Tickle, who were special guests at the event. The Tickles provided generous support for the new John D. Tickle Engineering Building, which was dedicated earlier that day in an impressive outdoor ceremony. Other special guests at the event included family and friends of John and Ann Tickle from around the country.

Representatives from professional engineering organizations included Jim Froula, executive director emeritus, and Curt Gomulinski, executive director, of Tau Beta Pi, the national engineering honor society, which is housed on the UT campus in the Deaghty Engineering Building; Marc Apted, president, the Institute of Electrical and Electronics Engineers; Larry Satkowiak, vice president, the Institute for Nuclear Materials Management; and Stacey DelVecchio, president of the Society of Women Engineers. Numerous members of the college’s Board of Advisors were also in attendance.

After the reception, guests moved into the main ballroom, highlighted with dramatic lighting donated by UT alumnus Michael Strickland, the CEO of Bandit Lites, for the dinner and program. UT Board of Trustees member and industrial engineering graduate Spruell Driver was emcee for the event, which featured remarks from Chancellor Cheek and Dean Davis.

Guest speaker Celeste Baine, a biomedical engineer, director of the Engineering Education Service Center in Oregon, and the award-winning author of over twenty books on engineering careers and education, provided educational entertainment during her presentation, titled "The Wow! Is Engineering." A video on the history of engineering, introduced by veteran UT faculty member and chemical engineering emeritus professor Dr. John Prados, a member of the college’s planning committee for the event, received an enthusiastic ovation from the crowd. The surprise came at the end of the evening, when John Tickle took the stage and announced that he and donors Chad and Ann Holliday, Joe and Judy Cook, and Eric and Elaine Zeanah had established the Wayne T. Davis Chair in Engineering. The chair was named in honor of Davis, the current engineering dean.

The gala was the final event in a two-day celebration of engineering that included a dinner with fireworks honoring the Tickles on Thursday, October 3; the dedication and ribbon cutting at the John D. Tickle Engineering Building on October 4; and the luncheon program featuring alumni and students to celebrate the 40th anniversary of Engineering Diversity Programs that same day.
EDP Celebrates 40th Anniversary

On Friday, October 4, at noon after the dedication ceremony, a group of engineering alumni, faculty, students, and special guests gathered at The Foundry, where the College of Engineering hosted a luncheon honoring the 40th anniversary of its Engineering Diversity Programs (EDP).

The crowd of over one hundred and twenty attendees was welcomed by COE Dean Wayne T. Davis, and Chancellor Jimmy G. Cheek also offered remarks recognizing the 40th anniversary of the college’s diversity programs.

Rodney Brooks (BS/ME ’85, Group 8), a mechanical engineering alumnus and vice president of ABB in Alamo, Tennessee, also spoke, recognizing the origins of engineering diversity initiatives that began with the Minority Engineering Scholarship Program (MESP) which was established by the college in 1973 under the direction of the late Fred Brown, Jr.

“The university has shown its greatness in the College of Engineering through its commitment to the diversity programs over the past forty years. To be able to celebrate forty years of diversity demonstrates the unwavering commitment by the leadership at UT,” said Brooks. “The future is bright to be a Top 25 university through the efforts of the engineering leadership along with the campus administration. Seeing the new Fred Brown Dormitory validates his efforts to provide opportunities to many students whose lives were impacted in a very positive manner by being a part of the College of Engineering. I am very proud to be a VOL!”

Special tributes were given to the National Society of Black Engineers; the National GEM Consortium; the EDP summer pre-college programs; the Society of Hispanic Professional Engineers; and the Tennessee Louis Stokes Alliance for Minority Participation.

The two previous directors of the program, Brown and James Pippin, also received recognitions. Pippin was present at the event and graciously acknowledged the current EDP director, Travis Griffin.

“An exciting event to behold was the return of the first group of students recruited by Mr. Fred Brown and those whom I recruited when they convened for the 40th Anniversary Celebration of the Minority/Diversity Engineering Programs,” Pippin said. “The establishment of the James T. Pippin Diversity Engineering Scholarship and the increased number of PhD degrees in medicine, engineering, and law as well as MBA degrees for underrepresented students as a result of the EDP I consider to be two of my greatest contributions to the College of Engineering.”

Special guests at the event included Cavanaugh Mims (BS/NE ’86, Group 9), a nuclear engineering graduate and president of the UT Alumni Board of Directors, and his wife, Telicia; and Dr. Mark Dean (BS/EE ’79, Group 2), co-inventor of the personal computer, former IBM Vice President and Fellow, and the new John Fisher Distinguished Professor in Electrical Engineering and Computer Science, and his wife, Denise, along with his parents James and Barbara Dean.

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“The 40th Anniversary Luncheon for the Engineering Diversity Programs brought me back to the place and connected me with the people where engineering and I became one,” said Tiffany Grant, CEO of TEGrant Consulting and a member of MESP Group 25. “I walked up to the third floor of Perkins Hall and went straight to the lecture hall. Filled with emotions of gratitude and pain, I said, ‘STATICS!’—that was my beginning, and I am grateful to Mr. James T. Pippin, the engineering diversity initiatives, and Group 25 for the support, love, encouragement, and access over the past sixteen years. The importance of what I received is almost impossible to put into words, but I hope for all students to be recipients.”

Enjoying the 40th anniversary luncheon (left to right): Trevor Williams, Tiffany Grant, former EDP director James Pippin, Darius James, and Erica Echols.
Engineering Diversity 2013 Summer Programs

The dyno-MITES participants discovered new engineering experiences through activities titled "Simple Machines!" Day at Buggy Cars; "Guinny Baaar Towers;" and "Hover Puck Shuffleboard." Dyno-MITES participants were divided into groups of two to three and worked on engineering design projects focused on energy. Participants worked in teams to design, construct, and present prototypes and cars that operated on solar energy. The program provided an engineering field trip to the American Museum of Science Energy as students learned the history behind Oak Ridge, the first atomic bomb, how nuclear power works, and more. The week was one full of laughter, competition, and fun.

After surveying the dyno-MITES participants, 100% are interested in pursuing a career in engineering. The participants rated "Engineering 101" with Rutherford as the best experience.

The First Engineering Volunteers for Ninth Graders (eVOL9) kicked off on June 23-28, 2013, with thirty-one rising ninth grade students, of which 52% were past MITES participants. Battelle and the Tennessee Science, Technology, Engineering, and Math (STEM) Innovation Network sponsored the 2013 eVOL9 program. The purpose of eVOL9 is to engage students in hands-on engineering activities, ACT math preparation, and help them learn the engineering design process.

For one day to four, the eVOL9 participants engaged in "Introduction to Engineering" with Rutherford; "ACT Math Preparation" with Michael Gilbert, lecturer within mathematics; and "Engineering Design" by Travis Griffin. The eVOL9 participants engaged in experiments featuring newspaper bridges, global warming, marshmallow catapults, and aerodynamics. Gilbert provided an introduction to ACT math through workshops and workbooks focused on pre-algebra, elementary algebra, and intermediate algebra. Based on pre-test and post-test assessment, 77% of the participants improved their pre-ACT math scores.

The eVOL9 participants were divided into groups of three to four and worked on engineering design projects focused on strength of materials with the help of hosts including Dr. Ernesto Rios of mechanical and civil engineering; and Adam Harbecke, electrical engineer at Oak Ridge National Laboratory. Students designed a minimum height and minimum width chairs. All materials provided were three twenty by thirty inch pieces of foam board, one roll of duct tape, and one bottle of Elmer's glue. In addition, participants developed and presented a PowerPoint presentation outlining their chair's engineering design process and commercialized their product to market their chair to their peers, faculty, sponsors, and special guests.

On Thursday, eVOL9 students participated in a special presentation of newspaper bridge building with students in the UT School of Journalism and Media Communication. The presentation provided an engineering field trip to Alcoa Aluminum in Alcoa, Tennessee, as students learned the history behind Alcoa and the aluminum engineering design process, took an official plant tour, and more.

After surveying the eVOL9 participants, 97% are interested in pursuing a career in engineering. The participants rated the best experiences as "Engineering Design," "ACT Math Preparation," and "Engineering Design." The eVOL9 program provided an engineering field trip to the Proctor & Gamble (Duracell) plant in Cleveland, Tennessee, where students learned the history behind the company and the battery design process, took an official plant tour, and more.

After surveying the eVOL9 participants, 100% are planning to pursue a career in engineering. The participants rated the chemical car design project as the best experience of the week.

The college hosted two sessions of the 13th Annual High School Introduction to Engineering Systems (HITES) program, one sponsored by Eastman and one by Bechtel. Eastman HITES was hosted July 14-19, 2013, and Bechtel HITES on July 21-26, 2013, providing engineering immersion to fifty-eight participants from nine states. The purpose of the HITES program is to provide rising seventh and eighth grade students and opportunity to explore engineering and campus life at the University of Tennessee.

From day one to day four, the HITES participants engaged in activities titled "Engineering Discovery," "Admission 101," "Financial Aid/Scholarship 101," "Campus Life Experience," and "Engineering Design Project." Each HITES session visited all seven departments of the college, with the participants engaged in activities including "History of Eastman and the History of Oak Ridge National Laboratory," "Chemistry," and "Engineering Design Project." Each HITES program provided an engineering field trip to an Oak Ridge or Knoxville area manufacturing company. Each HITES participant was paired with a mentor from the area and presented a PowerPoint presentation outlining their chair's engineering design process and project outcomes to their peers, faculty, sponsors, and special guests.

On Thursday, the eVOL9 participants engaged in a "Candy Challenge Car Competition" sponsored by Boeing. The program provided an engineering field trip to Alcoa Aluminum in Alcoa, Tennessee, as students learned the history behind Alcoa and the aluminum engineering design process, took an official plant tour, and more.

More than twenty-five years, the College of Engineering has hosted summer engineering experiences for seventh through twelfth graders. During the summer of 2013, the college hosted five sessions, including two new summer initiatives for rising ninth and tenth graders. Each session kicked off with an orientation for students and parents, housing accommodations at Guest Residential Hall, and a closing awards ceremony.

The 26th annual Middle School Introduction to Engineering Systems (MITES) commenced on June 16-21, 2013, with thirty-one rising seventh and eighth grade students. The dyno-MITES participants engaged in "Engineering 101" with Dr. Jerry Rutherford, a lecturer within the Department of Civil Engineering; "Engineering Design" with Dr. Chien-Fai Chan and Erin Willis of the Center for Ultra-Wide-Area Resilient Electric Transmission Networks (CURRENT), and "Engineering Discovery" with Betsy White of the Engineering Fundamentals program.

For more than twenty-five years, the College of Engineering has hosted summer engineering experiences for seventh through twelfth graders. During the summer of 2013, the college hosted five sessions, including two new summer initiatives for rising ninth and tenth graders. Each session kicked off with an orientation for students and parents, housing accommodations at Guest Residential Hall, and a closing awards ceremony.
Jamie Thomas (BS/CS '85), a general manager with international corporation IBM, got interested in engineering early through the influence of her father, who was an electrical engineer and was a textile engineering major at Georgia Tech. Thomas, who was born in Louisville, Georgia, and grew up for the most part in Chattanooga, saw her father’s interest in information science broaden within his career in the textile industry, and with his encouragement she chose to major in computer science at UT.

“The software engineering field was not well understood when I was in high school, but I was interested in science in general and decided to give it a try in college,” Thomas said. “UT had a solid computer science program with the College of Arts and Sciences at that time. I also was offered a first year scholarship as a valedictorian and I later won an upper class Roddy Scholarship.”

Thomas enjoyed the people she met on the university’s campus, particularly those in the computer science program who already had workforce experience coming back to school for the second round to major in the discipline. Thomas also co-oweded with the Department of Energy in Oak Ridge.

“The co-op job is one of my most memorable experiences with UT and it really enabled me to be more competitive when I graduated,” Thomas commented. “The faculty were also great at the university—less a math minor as well as a computer science major. The faculties in both departments were dedicated to the students and to learning overall.”

Thomas was a College of Arts and Sciences top graduate, and had the exciting experience of having Alex Haley as the commencement speaker during her ceremony in 1985. Haley’s book Roots was a national phenomenon, and getting the opportunity to meet the internationally famous author was a real highlight of Thomas’ tenure at UT.

After UT, Thomas joined IBM as a programmer in the Research Triangle Park location in North Carolina. After four years, she moved into management, and over the years moved up the management chain within the software organization. Thomas managed networking software, the WildPipes Product Software and Strategy, Rational Product Software and Strategy, and the Tivoli Product Software and Strategy. The WildPipes brand was created organically within IBM but both Rational and Tivoli were acquired initially. Today, Thomas is a General Manager for the Software Defined Environment Strategy within IBM’s Server and Technology division, responsible for how software will enable the next generation of automation for data centers.

“Since the late 2000s, the software engineering field has experienced tremendous growth in the years to come, with topics like cloud computing, big data, social media, and mobile being a few of the driving forces behind this growth. “I think that UT is in a unique position to capitalize on this growth, through its cooperative work with ORNL, and its investments in both engineering and computer science over the last several years,” Thomas commented. “Being able to understand the implications of computing in the arenas of energy and smarter infrastructure will serve the university well in the years to come. These are huge issues that affect global economies.”

Thomas is also encouraged by the increasing numbers of women who are becoming engineers.

“I believe that this is a great arena for women. Women are often more interested in the human elements of their careers and engineering allows you to have a huge impact on people, either within the organization you choose to work or in organizations that you serve,” Thomas said.

Outside of work, Thomas enjoys spending time with her husband, Richard Thomas, and their two furry children, dog Morgan and cat Leo. The couple loves the outdoors, and has a vacation home near Asheville, North Carolina. They also spend time golfing and hiking in the beautiful national parks between North Carolina and Tennessee, and also like to travel and learn about different cultures across the globe.

Jamie Thomas

Alumni Profile: Jamie Thomas

Jamie Thomas

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Jamie Thomas
The tent was huge! Still, the crowd of around six hundred spilled out beyond to celebrate the dedication of the John D. Tickle Engineering Building—the largest attendance of a ribbon cutting that UT can remember. In a letter to students Ann Tickle expressed the significance of this event writing, “We are here today to dedicate a building, but the students and faculty are what bring life to a building. You [the students] are the inspiration for us to remain engaged and committed to the university.”

The Tickles’ gift and the building named for John have inspired others, evidenced with over twenty donors acknowledged for their major support in plaques throughout this building. Gift recognition opportunities are still available in this beautiful one hundred ten thousand square foot facility. For information about naming one of the other available rooms, please contact Dorothy Bryson.

A $1.5 million commitment from Jim Gibson (BS/IE ’71) has established the Gibson Endowed Chair in Engineering to focus on research pointed towards answers to the world’s tremendous energy challenge. "This gift allows us to leverage funding for engineering provided in Governor Bill Haslam’s budget in a powerful way. The Gibson Endowed Chair will complement and expand our already considerable scope of work in the energy disciplines," explains Davis. With key faculty in multiple departments already working on leading-edge energy solutions, the Gibson Chair will be a senior-level professor who can augment current research collaborations and help the college create new clusters of strength. A national interdisciplinary search began fall 2013.

"Over the past several years I have met some of UT’s incredible young graduate students and have seen their research presentations," states Gibson. “Their enthusiasm and dedication gives me great hope for the future. They inspire me and my intent is to help the college bring in more great professors who will continue to inspire students.”

The College Fund for Engineering
Together with seven individual department funds, annual giving to these discretionary gift accounts provides the impact of a $10 million endowment. Over $470,000 was given to these eight funds by approximately one thousand individuals last year. That sends a strong message of the power of our alumni when they come together to make a difference. "Not everyone can give millions or even thousands, but I challenge each UT engineering graduate to give something worthy of the students we serve and educate," states Dean Wayne Davis.

These gifts are used to enhance laboratory renovations, assist with middle and high school engineering outreach programs, encourage faculty excellence, or purchase equipment for student labs and classrooms. Today’s fast-paced technology-rich engineering environment demands continual improvements if the college is to provide excellence in the classrooms and the labs.

The Wayne T. Davis Endowed Dean’s Chair
Announced at the conclusion of the 175th Anniversary Celebration Gala, this new $3 million endowment is another fund that will enable UT’s current dean—for whom it is named—to propel the College of Engineering forward. It is in recognition of Davis’ extraordinary service and leadership that John and Ann Tickle, Chad and Ann Holliday, Joe and Judy Cook, and Eric and Elaine Zeanah came together to establish the Wayne T. Davis Endowed Dean of Engineering.

“An endowment that establishes a Dean’s Chair is tremendously important,” notes Dr. Susan Martin, who as provost is the university’s chief academic officer. “It is a visible affirmation of the importance of great leadership in the academic enterprise.”

The Davis endowment is specifically designated to be used by the dean to advance the educational mission of the college. We celebrate the impact of giving at every level because the difference it makes for engineering students is real.

For information about making an impact of your own contact:

Dorothy Barkley Bryson
Executive Director of Development • The University of Tennessee, Knoxville • College of Engineering
114 Perkins Hall • Knoxville, Tennessee 37996-2012 • dbryson@utk.edu • 865-974-2779

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Events & Awards

COE Student Named UT Torchbearer

The Chancellor’s Honors Banquet was held on April 8, 2013, and a College of Engineering student received one of the university’s highest honors.

Akhitha Yarabothula was named a Torchbearer. She is a chemical and biomolecular engineering major, a Haslam Scholar, Chancellor’s Scholar, and Baker Scholar. Her dedication to research earned her a position as an undergraduate research assistant conducting graduate-level research. Her accolades include selection as the engineering first place divisional winner of the 2011 EURECA competition and as UT’s representative for the first SEC Symposium. She has helped others through volunteering with the boys and Girls Club of Greater Knoxville and in the emergency room at Fort Sanders Regional Medical Center, among other organizations. Yarabothula has led campus groups such as the Delta Phi Omega Sorority and the Society of Women Engineers.

UT’s Department of Housing honored her as one of its most outstanding resident assistants.

The Torchbearer is the highest honor the university gives to its students. The Torchbearer is awarded to seniors who have served UT with overall excellence. Recognition as a Torchbearer reminds all students that those who bear the torch of enlightenment shadow themselves to give light to others.

Akhitha Yarabothula (left) receives a plaque designating her as a UT Torchbearer from Chancellor Jimmy G. Cheek (right) at the Chancellor’s Honors Banquet.

COE Donor and Alum Host Randall K. Nutt Scholarships and Nutt Family Scholarship Barbeque

On Monday, April 22, 2013, Robbie Nutt and Tony Chilcoat (BS/EE ’88, BS/EE ’93) hosted the Randall K. Nutt Scholarship and the Nutt Family Scholarship Barbeque at her beautiful lakeside home in Jefferson Park in Knoxville.

A past and current scholarship recipients were invited to her home. These two scholarships recognize the Nutt Family’s contributions to UT. The former is named in honor of Robbie Nutt’s late son, Randall, who grew up an engineering student at UT.

Additional hosts for the event included Robbie’s son, Robert Nutt (BS/EE ’96), and her daughter, Rhonda Nutt Goble (BS/EE ’93, MS ’04, PhD/MSE ’07). The former is named in honor of Robbie Nutt’s late son, Randall, who was an engineering student at UT.

Guests enjoyed a catered dinner by Dead End BBQ (co-owned by Robert Nutt) and the opportunity to reconnect and personally thank the Nutt family for the impact the family’s gifts have had on so many undergraduate engineering students at UT.

Tony Chilcoat (front row, far left) and Robbie Nutt (second row, second from left) are joined by the Randall K. Nutt and Nutt Family Scholarship recipients and alumni, as well as COE Dean Wayne Davis (far right) at the barbeque and reunion hosted at Nutt’s home.

Events & Awards

NIE Grand Challenge Scholars Recognized

Three National Academy of Engineering (NAE) Grand Challenge Scholars were saluted at the College of Engineering’s spring board meeting and at the 2013 engineering commencement ceremony for completing additional challenging academic requirements as stipulated by NAE: Morgan Ryan邹, a chemical engineering major; Ethan Zachariah Calser, an aerospace engineering major; and Katelin Elizabeth Hasse, a nuclear engineering major.

In 2008, the National Academy of Engineering identified fourteen Grand Challenges for engineering in the 21st century. These challenges represent each of the broad realms of human concern—sustainability, health, vulnerability, joy of living—as specified by the NAE qualifications and response to an online poll sponsored by the organizations that received over twenty-five thousand votes over five months.

The Grand Challenge Scholar Program is the companion program for engineering schools that have accepted the challenge of designing combined curricular and extra-curricular programs to prepare students to be the generation that solves the grand challenges facing society. In 2009, the University of Tennessee College of Engineering established an approved Grand Challenges Scholars Program. The college is one of only twelve engineering colleges in the country to have this prestigious program.


AOL Founder Visits COE

On Tuesday, April 16, Ken Huntsman (MS/CS ’77), recipient of the UT Accomplished Alumni Award for 2012, presented Crashing the Internet on Training Wheels,” a special seminar for University of Tennessee faculty, staff, and students.

Huntsman also is a 1974 graduate of Penn State University with a BS in computer science. He received an outstanding recommendation by Dr. Edwin Burdette, the Fred. N. Peebles Professor in the Department of Civil and Environmental Engineering. The committee was also impressed with his extracurricular activities, which included participation in the student chapter of ACEC and volunteering.

“I am very thankful for ACEC and their scholarship program,” said Drummier. “It’s an honor to have received this scholarship and will really help with paying for next year’s tuition. I am always thankful to organizations who lend financial support to help students achieve their goal of becoming an engineer.”

ACEC of Tennessee is a member organization of the American Council of Engineering Companies, a national federation devoted to promoting the business interests of approximately five thousand six hundred engineering companies employing more than five hundred thousand engineers; architects, land surveyors, scientists, and other specialists. ACEC promotes infrastructure funding, qualifications-based selection, outsourcing, tax reform, regulatory changes, and other government actions benefiting engineering companies.

For more information about the ACEC, visit http://www.acectn.org/.

Help Support the IEEE Robotics Team Go to www.volsconnect.com/impact to give today!

COE Dean Wayne Davis (far left), Director of Outreach Programs Roger Parsons (left) and Associate Dean for Academic and Student Affair Affairs Massoud Parang (far right) with the NAE Grand Challenges Scholars (left to right) Ethan Zachariah Calser, Katelin Elizabeth Hasse, and Morgan Ryan邹 at the college’s spring Board of Advisors meeting.

COE Student Receives Scholarship from ACEC

Calab Drummer, a senior in civil engineering in UT’s College of Engineering, was one of two students out of twelve applicants to receive a $1,000 scholarship from the American Council of Engineering Companies (ACEC) of Tennessee. As one of the Tennessee representatives, he is now eligible for one of five scholarships given by ACEC National.

The selection committee, which included David T. Harrell, PE, of the Vaughn & Melton engineering consulting company, evaluated Drummer in five areas: his grades, an essay, his work experience, recommendations from faculty, and extracurricular college activities. He maintained a 4.0 GPA and the committee found his essay and work experience to be excellent. In his essay, Drummer wrote about the role or responsibility of the consulting engineer in mitigating the impact of natural disasters. He has worked as an assistant and research student in the Department of Civil and Environmental Engineering.

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The University of Tennessee College of Engineering gave its most prestigious honor—the Nathan W. Dougherty Award—to industrial engineering graduate John D. Tickle at the college’s annual Faculty and Staff Awards Dinner, held on Thursday, April 4, 2013, at the Crowne Plaza.

Tickle, who earned the rank of Eagle Scout, received the Dougherty Award from the National Court of Honor of the Boy Scouts of America in June 2012. He also recently received the 2013 ACMA Lifetime Achievement Award from the American Composites Manufacturers Association (ACMA), the composites industry’s largest trade group in the world.

Tickle and his wife, Ann, graduated with bachelor’s degrees from the UT College of Education, are extensively involved in philanthropic work and are avid supporters of the university. He has been a member of the UT Athletic Board and has served on the College of Engineering’s Board of Advisors and is a member of the Campaign for Tennessee Engineering Executive Committee. Ann Tickle has been an active member of the Development Council and Alliance of Women Philanthropists. Mr. and Mrs. Tickle have been contributing to the university for over forty years.

A gift from the Tickles established the John and Ann Tickle Small Animal Hospital expansion within UT College of Veterinary Medicine, allowing continued construction to allow for the $10 million addition in 2007. The facility was opened in the spring of 2006.

COE Alumni Receive Recognitions at the Alumni Board of Directors Awards Dinner

On Friday, September 27, the College of Engineering Alumni Board of Directors Awards Dinner was held at the Knoxville Convention Center. Two College of Engineering alumni received distinctive awards at the event.

Wallace Dwight Kessel, an industrial engineering alumnus, received the Alumni Service Award. He has been married to Gloria Grubb Kessel for sixty-two years. Kessel, who also attended Duke University and the University of California for his doctoral degree from Chapman Drugs when neighbors suggested his college all-star potential.

Kessel was a member of the Knoxville City Council (1963–1967), Knox County (1968–1980), and was elected the first Knox County Executive in 1960–a position that he held for twenty years. His business interests have included real estate investments, the conversion of the Farragut Hotel into office space, including Dwight Drug Company, and Dwight Webb into a multi-state chain, and the startup of one of the nation’s first local internet companies, Kessel Auditors.

His community involvement goes far beyond political positions, as he has served with Boy Scouts of America; the Greater Knoxville Chamber of Commerce; Knox County Highway Council Development Corporation of Knox County, Juvenile Court Advisory Board, East Tennessee Foundation, and many more. He has also been a member of the West Knoxville Kiwanis Club for sixty years. Due to his commitment to the Knoxville community, several buildings have been named after Kessel, including the Wallace Dwight Kessel Building, Greenbrier Station, Dwight Kessel Metropolitan Parking Garage, and the Dwight and Gloria Grubb Kessel Auditorium in the Science and Engineering Research Facility at UT.

Kessel and his wife have been loyal supporters of the university and have established scholarships, professional fellowships, and professorships in the College of Engineering. They also created an endowment for UT Institute for Public Service in västländs county government in the state. He has served on the UT College of Engineering Board of Directors, the UT Chancellor’s Associates and the UT Development Council.

Kathy Caldwell received the Alumni Professional Achievement Award. Caldwell graduated from the University of Tennessee with high honors in civil engineering in 1982. Upon graduation, she worked as a structural designer with Lockwood Greene in Oak Ridge, Tennessee, before moving to Austin, Texas, in 1987 and joined Parkhill Smith & Halovitch as an associate consultant with the Texas Department of Highways and Public Transportation.

Caldwell joined Jones Edwards and Associates, Inc., in Gainesville, Florida, in 1989. As the first person of his generation, he moved to Gainesville, Florida, in 1989, using his ninetieth year with the firm, she served public works clients as a design engineer, project manager, and senior construction resident engineer. She became a registered civil engineer in 1996, and is a member of the Florida Bar. She has served on the Florida Bar's Committee on Women in the Profession, the Florida Society of Professional Engineers, the American Society of Civil Engineers, and the American Association of Engineering Societies (AAES). She has also served the White House as a Tribal Champion of Change for Transportation and has testified on Capitol Hill.
Council of Engineering Companies of Tennessee (ACEC of TN), receive this honor. Alumnus Kathy Caldwell (BS/CE ’86, ME/CE ’87), becoming the second UT College of Engineering graduate to receive the ACEC of Tennessee Engineer of the Year award. Hillman was recognized in the transportation category, for his development of the hybrid-composite beam, a structural component that helps reduce the weight and increase the strength of bridges.

In 1989, ACEC of Tennessee is a statewide organization with fourteen chapters, and its mission is to advance engineering, particularly for his hard work, innovative ideas, and dedication to the business and academic community.

H.M. Hashemian (MS/NE ’76), president and CEO of the North American Simulation Corporation (AMS) in Knoxville, has been selected by the UT Small Business Administration in Washington, DC, as the 2013 Tennessee Small Business Person of the Year. The SBA honors Hashemian’s achievements and role in advancing Tennessee’s economy, particularly for his hard work, innovative ideas, and dedication to the business and academic community.

James M. “Mike” Holmes (BS/CE ’87) was promoted to Lieutenant General on August 2, 2013. He now serves as Vice Commander, Air Education and Training Command, Joint Base, San Antonio-Randolph, Texas. In his previous role as Major General he most recently served as Assistant Deputy Chief of Staff for Operations, Plans and Requirements, Headquarters, US Air Force, Washington, DC.

Dr. Robert E. Uhrig, an emeritus professor in the Department of Nuclear Engineering, passed away on June 12, 2013. Harrell is a member of the Tennessee Society of Professional Engineers.

Another College of Engineering graduate, Joe Ledford (BS/CE ’80), PE, Board Chairman for Barge Waggoner Sumner and Cannon, Inc., was elected Second Vice President of the ACEC of TN. Ledford, a structural engineer, joined Barge Waggoner in 1985 and has worked in its Knoxville office for twenty-six years. He currently serves as Chairman of the Board of Directors at Barge Waggoner. He is a registered engineer in Tennessee, Georgia, South Carolina, North Carolina, Missouri, and Alabama. Ledford is a member of the East Tennessee Industrial Council, the American Society of Civil Engineers, and the National Society of Professional Engineers.

Founded in 1968, ACEC of Tennessee is a statewide organization with fourteen chapters, and its mission is to advance engineering, particularly for his hard work, innovative ideas, and dedication to the business and academic community.

Anup Bandyopadhyay (MS/EnV’94) is the 2013 Chair of the West and Middle Tennessee Chapter of the Air & Waste Management Association (AWMA). Bandyopadhyay is a Senior Air Quality Analyst at ENVIRON International Corporation in Brentwood, Tennessee.

Doug Brock (BS/EE ’52) was appointed manager of the Southeast Tennessee and Northwest Georgia locations of Kendall Electric Inc.

Dr. Han (John) Lin (PhD/CE ’03), Noitom LTD’s CEO, co-founded Noitom in 2010. Since then, the company has taken off. Noitom seeks to revolutionize the concept of optical motion capture business. Based in Beijing, China, Noitom develops highly accurate and user-friendly motion capture systems that allow individuals to record and digitize complex body motions anywhere and anytime. Noitom’s first public application, mySwing, is a portable golf swing analysis system. Visit Noitom online to learn more about this technological advancement (http://www.noitom.com).

Inayat Husain (MS/CEF’48) died on June 11, 2013. He was a resident of Karachi, Pakistan. After earning his MS degree at UT, Husain settled in newly formed Pakistan in 1948 and helped with the rebuilding and development of the country from independence to the nuclear power program, and held a variety of government positions relating to science and technology.

“Bob was an incredible person with unequalled work ethic. He will be deeply missed,” said Dr. Wesley Hines, head of the UT Department of Nuclear Engineering.

Inayat Husain

Jere Ballentine (BS/EE ’59) died on March 25, 2013. He was a resident of Dayton, Tennessee.

David Arthur Barford (BS/EE ’69) died on June 28, 2013. He was a resident of Nashville, Tennessee.

Herschel Bryant (BS/CE ’49) died on June 11, 2013. At 100, he was a formerly a resident of Stone Mountain, Georgia, and more recently of Indian Harbour Beach, Florida.

Jack Thomas Carter (BS/CE ’57) was a resident of Little Rock, Arkansas.

William H. Dodson (BS/CEF’50) died on May 3, 2013. He was a resident of Fellowship, Florida.

Joseph Owen Ellis (BS/CEF’59) died on November 8, 2013. He was a resident of Wauchula, Florida.
College of Engineering
Homecoming 2013

Save the Date
College of Engineering Alumni BBQ
On the Hill

The University of Tennessee College of Engineering invites you to Homecoming 2013 and the Annual Alumni Barbeque on the Hill.

Saturday, November 9, 2013

Three hours prior to kickoff of the Tennessee vs. Auburn game.

Join us for a barbeque lunch, including hot dogs for the kids.

Enjoy exhibits and demonstrations, reunions with former classmates and faculty, and games for both adults and children.

Register today and be a part of the tradition.

Costs:
$12.00/adults - $8.00/children under ten years of age

Register online at: www.volsconnect.com

For more information, contact Christina Parsons at (865) 974-2779 or e-mail engrdev@utk.edu.