NASA Senior Leadership Visits the College of Science, Engineering and Technology

Mr. Stephen Jurczyk, who is the Associate Administrator of the Space Technology Mission Directorate (STMD) of the National Aeronautics and Space Administration (NASA), and senior members of his staff at NASA Headquarters and the Johnson Spaceflight Center (JSC) visited the College on November 5, 2015. The purpose of the visit was to establish deeper participation of TSU and other historically black colleges and universities (HBCUs), generally, in NASA STMD projects.

The Space Technology Mission Directorate is responsible for developing crosscutting and innovative new technologies and capabilities needed by the agency to achieve its current and future missions. STMD rapidly develops, demonstrates, and infuses revolutionary, high-payoff technologies through transparent, collaborative partnerships and invests in new technologies that are required for NASA’s future missions in science and exploration.

NASA JSC representatives were Lynn R. Vernon, Acting Deputy Director, University Collaboration and Partnership Office and Dr. Kamlesh (Kam) Lulla, Director, University Collaborations and Partnership Office/External Relations Office, and Diego Rodriguez, Education Lead, Space Technology Mission Directorate, NASA Headquarters, Washington, who are working directly with COSET to establish interest groups of TSU researchers to partner with NASA research and development programs. The personal visit of the Associate Administrator underscores the importance of the HBCU/MI initiatives for NASA.

Other attendees were Dean Lei Yu, Dr. Oscar Criner, Dr. Bobby Wilson, Dr. Alamelu Sundaresan, and Dr. Shishir Shishodia from COSET and Dr. Premkumar Saganti, of Prairie View A&M University, College of Engineering.
COSET 2015 Open House and Alumni and Partnership Luncheon More Exciting than Ever Before

The College of Science, Engineering and Technology held its 7th annual Open House-Alumni and Partnership Luncheon on October 23rd with a rousing Keynote address by Mr. Scott Minnix, Director, General Services Department of the City of Houston. Mr. Minnix excited the whole room with an unorthodox entrance after the program had begun.

The theme for this Open House was an extension of the theme of 2014, which was “STEM excellence Moving Forward.” In 2015, the College kept up the progress of 2014 and because of that momentum, the theme the “Next Steps” in moving the College forward was chosen for 2015. Dr. Oscar Criner provided some direction for the next steps, which focused on outreach to schools, recruitment, retention, and progression of students through the academic program. Dr. Criner appealed for support from the community to help encourage students to study STEM subjects in college.

The COSET “Royalty” were introduced: King Richard North, Queen Tracey Taylor, Duke Xien Thomas, and Duchess Dayana Abdullah Smoot. These students not only won a popular vote in the college, but are also very good academically.

Dean Yu provided the State of the College of Science, Engineering and Technology in his Report of Annual Activities address. The Dean pointed to the significant rise in student enrollment for the fall of 2014, which was an 18% increase over the fall 2013. The level of growth in enrollment is phenomenal, says Dean Yu. Continued growth is expected as a result of our new programs in Engineering.

In keeping with our new tradition begun in 2014, this open house showcased the progression of our students and their achievements. Four students made presentations of their research: Simone Holmes, a senior studying computer engineering technology, Tracey Taylor, a senior studying Chemistry, Blair Ogujiofor, a junior studying Aviation Science Management, and Jamaal Roby, a junior studying Computer Science.

Mr. Ike Allen provided the perspective from the COSET Advisory Board and indicated the thrust of the board’s activities in securing partnerships from the business and corporate world.

Dean Yu provided the introduction of Mr. Scott Minnix who surprised the house with a rousing musical introduction as he danced his way to the podium. He wanted to get the attention of everyone after a good lunch. Mr. Minnix spoke about engineering and technological opportunities that are developing for the near future and their applications to the progress of the City.

Ms. LaKeisha Melton, President, COSET Chapter, TSU National Alumni Association, gave the alumni perspective and encouraged all COSET alumni to be active in a partnership with their Alma Mater.

Dean Yu presented awards to the Distinguished Alumni from each department. They were Ms. Roben L. Armstrong from the Department of Transportation Studies, Mr. Emil Burns from the Department of Engineering, Mr. Edwin Cuc from the Department of Computer Science, Mr. Jose Doblado from the Department of Aviation Science and Technology, Ms. Samantha J. Everett from the Department of Physics, Dr. Ashley N. Guilory from the Department of Physics, Ms. Karen Pennywell from the Department of Chemistry, Mr. Reginald E. Taylor from the Department of Mathematics, Mr. James S. Walker III from the Department of Industrial Technology, and Dr. Zivar Yousefi-pour of the Department of Environmental and Interdisciplinary Sciences.

Dr. Criner recognized the distinguished visitors and the College Events Committee, and COSET Ambassadors who worked so hard in making the event as enjoyable as ever.
H O M E C O M I N G  2 0 1 5

“88, The Roar is Great!”

The “88, The Roar is Great!” Homecoming Alumni Activities were celebrated from Wednesday, October 21 through Saturday, October 24, 2015. The Grand Texas Southern University Parade was held on October 24, 2015 in downtown Houston. The College of Science, Engineering and Technology is quite excited to report that in the campus-wide Decorating Competition, COSET Dean’s Office received First Place award, in the Float Competition, COSET received Third Place award, and in the Other Motorized Vehicles Division, COSET received Third Place award. The “88, The Roar is Great!” COSET float highlighted the 2015-16 King Richard North, III, Queen Tracey Taylor, Duke Xien Thomas, and Duchess Dayana Abdullah Smoot and Dr. Oscar Criner. The COSET Student Walking Unit that chanted and cheered behind the float was joined by faculty and staff Dean Lei Yu, Charlotte Whaley, Dolly Spencer, and Dr. Shishir Shishodia, and COSET Alumni President LaKeisha Melton and members Shawn Williams and Roben Armstrong. As our COSET Tailgating continues to grow yearly, our Old Fashion BBQ buffet is always a big hit with barbecued beef brisket and chicken with sides of country potato salad, ranch style baked beans, roasted vegetable bow tie pasta salad, seasonal fresh fruit salad and cornbread rolls, and then, for desert peach cobbler, assorted cookies and brownies. COSET staff Tioka Freeman and Nia Eakins made sure everyone was appetizingly satisfied.

The College of Science, Engineering and Technology hosted its annual Holiday Celebration on December 3, 2015, 1:00 – 3:00 PM at the New Science Building Atrium with great music from DJ Master Mixer Jerome Williams. All in attendance were welcomed by Tracey Taylor, COSET Queen 2015 and received greetings from Dayana Abdullah-Smoot, COSET Duchess 2015. A delectable lunch was served and the entertainment began. This year’s theme “Unlocking the Holi-DEN” showcased the talent of COSET students, faculty and staff. Students Roland Brutus, Peijia Tang, and Chidera Norah, warmed our hearts with versions of song and Jaida Rice energized us with dance. We were delighted with Dr. Carlos Handy and the 2 1/2 Trio band and Dean Dr. Lei Yu with his magnificent trick of magic. Dr. Oscar Criner made a special appearance as Santa and assisted by Mrs. Dolly Spencer, engaged the audience to participate in a round robin performance of the song “Twelve Days of Christmas.” Graduating students were recognized and presented a Certificate of Participation by Dr. Desiree Jackson for serving on the Dean’s Advisory Council and as COSET Ambassadors. Before final words from Dean Yu, Richard North, III, COSET King 2015 acknowledged the Event Committee members, COSET Department Chairs, and Special Guests. Dr. Yu thanked everyone for coming and invited all to join in the line dancing led by Dayana Abdullah-Smoot. Students, faculty, staff and guests had a great time dancing and listening for their names as the raffle continued with Xien Thomas, COSET Duke 2015.

Happy Holidays!
Aviation Science Management and Industrial Technology Programs Receive Full Accreditation from ATMAE

The Construction and Design programs in the Industrial Technology Department and Aviation Science Management program in the Department of Aviation Science and Technology received full accreditation till 2019 from the Association of Technology, Management, and Applied Engineering (ATMAE).

Drs. Yu, Shishodia, Horner, and Olowokere attended the ATMAE accreditation hearing in Pittsburg, PA on Wednesday, November 11, 2015, for the two programs, Aviation Science Management and Industrial Technology. The hearing was a result of the on-site visit by the ATMAE accreditation team two years ago, when the team decided to give TSU “Accreditation with Two-Year Report.” In the hearing on November 11, 2015, there were only two brief comments on the two-year report, both of which highly praised how much we have accomplished in the last two years. Without any discussions, the two-year report was unanimously accepted by the ATMAE accreditation board without further actions. Our entire hearing took less than 5 minutes.

After the hearing, the committee chair stated that there had never been a hearing in ATMAE history where there was no need of discussions. The quality of work at TSU was apparently well recognized by ATMAE.

Congratulations, Aviation Science Management and Industrial Technology programs!

Department of Transportation Studies Receives 2 TxDOT Research Projects

Dr. Yi Qi and Dr. Mehdi Azimi received individual research awards from TxDOT. The title of the first project, led by Dr. Qi as principal investigator, is “Development of Systemic Large Truck Safety Analysis” with the total award of $118,036. The goal of this research is to analyze the risk factors of large truck involved crash, recommend low-cost, highly effective countermeasures, as well as determine about how many large truck involved crashes can be reduced by implementation of specific countermeasures.

Texas has the highest number of fatal crashes involving large trucks in the U.S. since 1994. The final product of this project will be implementation-oriented recommendations on large truck-involved crash prevention and mitigation.

The principal investigator of the second project, “ITS Deployment in Work Zones,” is Dr. Azimi. TSU is the lead university in this project and the University of Texas at El Paso is the collaborating institution. The total award is $153,667, with TSU receiving $108,667. The goal of this project is to establish guidelines to help TxDOT to systematically identify the work zone intelligent transportation systems (ITS) locations.

Chongqing Jiaotong University Delegation Visited TSU

The Chongqing Jiaotong University (CQJTU) Delegation led by the Vice President, Dr. Zhi Zhou, visited Texas Southern University (TSU) and the College of Science, Engineering and Technology on Monday, November 30, 2015. The purpose of this visit was to establish academic and research collaborations between TSU and CQJTU in China. The CQJTU delegation met with Dr. James Ward (Provost and Vice President for Academic Affairs & Vice President for Research of TSU), Dr. Gregory Maddox (Interim Associate Provost/Associate Vice-President for Research and Director of International Programs), Dr. Lei Yu (Dean of COSET) and Dr. John H. Williams (Dean Jesse H. Jones School of Business). During the meeting, a Memorandum of Understanding regarding the exchange of students and research collaborations between the two universities was signed. The delegation also toured COSET laboratories, and learned about the academic and research programs offered by COSET.

Aviation Science Management and Industrial Technology Programs Receive Full Accreditation from ATMAE
Faculty Spotlight  Hyun-Min Hwang

Dr. Hyun-Min Hwang is an Assistant Professor in the Department of Environmental and Interdisciplinary Sciences. He received B.S. in Earth and Marine Sciences from Hanyang University, Korea, and M.S. in Environmental Chemistry from the same university. He earned Ph.D. in Oceanography from Texas A&M University. His research and dissertation was environmental quality assessment using lysosomal membrane destabilization and toxicokinetics of contaminants in bivalves. He moved to California for his postdoctoral fellowship in the Department of Civil and Environmental Engineering at the University of California, Davis, and conducted numerous research on sources, fate, and transport of trace metals and organic contaminants in the environment. He taught at California State University in Sacramento as an Adjunct Professor. He came back to Texas in 2011 to join Texas Southern University as a tenure-track assistant professor. He came with a research grant received from US Department of Agriculture Forest Service to investigate sources of fine sediment particles and their transport dynamics in highway storm water runoff in the Lake Tahoe Basin. He has served as a Co-Principal Investigator on the NSF HBCU RISE grant and surveyed fate and transport of platinum group elements in the Houston metropolitan area. Over the past 3 years, he has successfully directed and coordinated COSET Summer Undergraduate Research Program that is very productive and growing steadily. He served as an advisory panelist for Texas Health in All Policy Program of Texas Health Institute. Dr. Hwang has published 25 plus peer-reviewed research articles and one book chapter and delivered more than 50 presentations at regional, national, and international conferences. At TSU, he has supervised 5 graduate students and mentored 10 undergraduate research projects. He also joined a local general public education program (Creation Care Fest/Environmental Extravaganza) designed to increase awareness of Houstonian on environmental sustainability. Recently, Dr. Hwang received a P3 (People, Prosperity, and Planet) Phase I grant from Environmental Protection Agency to build an innovative hydroponic based green roof on campus. Students participating in this project will bring the proposed design to Washington, DC for a national competition in April 2016 for the Phase II award.

Department Spotlight

Environmental and Interdisciplinary Sciences

The department of Environmental and Interdisciplinary Sciences (EIS) has experienced a 30% increase in enrollment during the past academic year and continues to attract high quality applicants to its Ph.D. and M.S. programs in environmental toxicology. Students within the Environmental Toxicology program also have access to a full time technician during regular business hours as well as a part time laboratory technician in the evening hours to assist them with data acquisition.

Important, the department has responded to an expressed student need for a dedicated computational facility by creating a Geographic Information Systems (GIS)/computational lab that consists of 15 PC computers with 16 GB RAM and 1 TB hard drive, a smart board, geospatial software such as ESRI ArcGIS, ERDAS Imagine, ERDAS ER Mapper, MINITAB, Google Earth and Google Earth Pro in addition to 4 Mac computers. The aforementioned sophisticated software will support student remote sensing and (GIS)-related research, special topics courses in GIS, and eventual GIS certificate and environmental science undergraduate programs. The lab’s research activities will promote collaboration with industry, government, and other universities. Undergraduate (Geology) and graduate students involved in remote sensing and GIS research will utilize the facility, which will also be open to all Environmental Toxicology graduate students for their other computational needs.

In addition to the environmental toxicology journal club and seminar series value added programming, students also benefit from increased financial support in the way of 17 Title III and 4 NSF RISE funded grants (Drs. Bhaskar, Hwang, and Rosenzweig), 4 extramurally funded grants (Drs. Bhaskar), 4 book chapter (Dr. Bhaskar), 4 presentations (Drs. Bhaskar and Rosenzweig), 4 conference proceedings, 23 abstracts in conference meetings, and 5 invited lectures (Drs. Yakubu, Bhaskar, and Rosenzweig).
Staff Spotlight Rita Didikiri

Rita Didikiri is the Administrative Assistant for the Department of Transportation Studies. She is from Nigeria, West Africa. Ms. Didikiri came to Texas Southern University on a Four Year Track Scholarship, graduated from Jesse Jones School of Business with a Bachelor of Business Administration. She worked with Residential Life and Housing Department as a Hall Manager and a Leasing Coordinator. She continued her education and graduated with a Master Degree in Accounting and Transportation Management. She has worked with ‘The Bridge Over Troubled Waters’ as a Payroll/Grant Billing Associate.

Student Spotlight Simone Holmes

Simone is a native of Houston, Texas where she earned her high school diploma from Booker T. Washington High School and the High School for the Engineering Professions in 2007. Her desire to pursue a career in Engineering brought her to Texas Southern University in the Spring of 2013. During her tenure at TSU she has maintained a cumulative GPA of 3.4 for which she has been recognized at TSU’s Honors Day Convocations in 2014 and 2015. She previously served as the Treasurer for the National Society of Black Engineers (NSBE) TSU student chapter, and currently fulfills the role of President for the organization. Upon graduation, she plans to pursue a Masters of Business Administration degree to pave her path towards a rewarding career in Industry.

Alumni Raves Emil Burns

Mr. Emil Burns came to Texas Southern University in 2006 after serving 5 years and 2 tours in Iraq for the United States Marine Corps. There he earned the distinction of Sergeant as a Ground Radio Repairman. Emil Burns then received his Bachelor of Science in Electronic Engineering Technology from Texas Southern University in 2010.

After graduation, Emil launched his career in San Antonio, Texas, as an Electronics Technician with Schlumberger Pressure Pumping Services where he became a highly experienced Field Service Engineer and Electronic Technician with extensive background in the maintenance, repair, and reconfiguration of equipment within the oil and gas industry.

After 3 years of extended work days doing hydraulic fracturing with the company, a better opportunity arose with Ametek-Chandler Engineering. There he was offered a better quality of life, and the opportunity to travel. Since joining the company as a “Global Services” Field Engineer at Ametek-Chandler Engineering, he has travelled to more than 14 states, 60 cities, and 6 countries including Dubai and Trinidad. Despite his extensive travels, Emil still has plenty of time to spend with his 15 year old son and 6 year old daughter.

Throughout his career, he has used exceptional troubleshooting and analytical skills, along with his attention to detail to inspect, test, and locate a problem and resolve complex technical problems. On a daily basis, Mr. Burns develops practical and thorough technical solutions to complex problems utilizing ingenuity and creativity.
Students in Flight Program Traveled to Washington, DC

The Department of Aviation Science and Technology from the College of Science, Engineering and Technology chaperoned ten (10) students from its Flight Program to the Smithsonian Air and Space Museum in Washington, D.C. This exciting venture was overwhelmingly enjoyed on December 8-9, 2015.

Several of the students had never had an opportunity to fly on a commercial jet previously. As customary, the United Airlines extended courtesies to the faculty/staff and students. Moreover, all participants received the royal treatment including the boarding priority. In addition, students aboard the flight were welcomed and acknowledged by the flight crew.

Students enjoying this exclusive experience were: Frederick Aferdi, Eric Opande, Michael Jones, Demonta Galloway, Jacquelyn Vickers, Jerome Bob, Jerrod Caldwell, Ariel Martinez, Tyler Malveaux and Patricia Pratt. Faculty/Staff (not shown in photo) are: Captain Roscoe Edwards, Director of Flight Operations, Chief Pilot Matthew Julien, Mrs. Cynthia Wilburn, and Interim Chair of the department, Mr. Edward Booker III.

Captain Robert Morgan’s Addresses ITC Monthly Luncheon

On Wednesday, September 23, 2015, Capt. Robert Morgan Jr., instructor of the Texas Southern University Transportation Studies Department, was the keynote speaker for the International Trade Center (ITC) monthly industry luncheon. The International Trade Center is a viable organization founded and dedicated to promotion of International business opportunities for U.S. -based businesses and foreign trade delegations. This prestigious entity brings together business leaders, government policy makers, legal practitioners, and international companies to facilitate trade opportunities for import and export. Professor Morgan spoke before a group of 60 people composed of Exporters and Importers Specialists, Trade Finance Professionals, Export Compliance Specialists, Customs Brokers, Freight Forwarders, Insurers, Marine Underwriters, International Credit Professionals, Sales and Purchasing Managers and a variation of undergraduate and graduate students from TSU and surrounding universities. Professor Morgan enlightened the crowd of professionals on the interesting arena of international logistics and the latest International terms of Sales (INCOTERMS) from the International Chambers of Commerce headquarter in Paris, France. During the seminar Capt. Morgan gave everyone in attendance valuable, advantageous, and current information on logistics and INCOTERMS. Upon the completion of the seminar, Morgan gave out door prizes and opened the floor for questions to be answered by the various professionals in their respective fields.
Scholarly and Creative Activities

Publications and Presentations


Dr. Jason Rosenzweig to Appear on Discovery Channel

Dr. Jason A. Rosenzweig, Associate Professor in the Department of Biology was Interviewed by TV producer WAG TV on October 8, 2015 for a segment entitled NASA’s Unexplained Files describing astro-microbiology research which will appear on the US Discovery Channel Spring 2016.

Dr. Rosenzweig was the lead scientist on the NASA URC Microbial 1 Experiment that evaluated the morphological and molecular changes in Escheria coli and Bacillus subtilis in space microgravity. URC-Microbial 1 investigation was designed by the Center for Bio-nanotechnology and Environmental Research at TSU.

COSET Alumni News

Amanda J. Henry, M.S.
Biology Alumni
Volunteered with a local aviation non-profit that partnered with TSU, the City of Houston and other sponsors. Current profile relates to degrees earned and honors submitted to the National Science Foundation on Texas Southern University LSAMP Alumni, so the profiles can be placed in a large volume book to be distributed to STAKEHOLDERS and Legislators in the Congress and Senate.

Shaunte Abdin, M.S., Ph.D.
Candidate Environmental Toxicology, Biology Alumni
Awarded a mini-grant to fund Quantitative Approaches to Monitor Microbial Cultures, Photosynthetic Pigments and Enzymes Kinetics (2,500).

LaKeisha D. Melton, B.S.
Computer Science Alumni
Awarded 2015 National Association of Professional Women (NAPW) Professional Woman of the Year, and inducted as an Elite Member. Also inducted as a 2015 Continental Who’s Who Pinnacle Member.

Shawn Williams, M. S., Ph.D.
Candidate Interdisciplinary Studies, Biology Alumni
Received an Associate Environmental Professional (AEP) certification.

Dr. Shawn Simmons, Ph.D.
EIS Alumni
Received the Society of Women Engineers (SWE) Spark Award.

Dr. Carol Lewis to Receive 2016 Sharon D. Banks Award

Dr. Carol A. Lewis, Professor of Transportation Studies Department and Director of Center for Transportation Training and Research, is to receive the Transportation Research Board (TRB)’s 2016 Sharon D. Banks Award for Humanitarian Leadership in Transportation. She is recognized for her unique blend of transportation accomplishments, successes in the mentoring and nurturing of young people, and tireless promotion of responsible growth and protection of neighborhoods. Lewis’ people-oriented approach to planning is credited with the difference in lives of countless students, fellow researchers and professors, younger professionals, community groups, and transit riders throughout the Houston, Texas area.

This award was established in 2001 in memory of Sharon D. Banks, who was the General Manager of AC Transit, Oakland, California, from 1991 to 1999 and served as Chairwoman of the Transportation Research Board Executive Committee in 1998. She died in 1999. She was nationally known for her personal integrity, for nurturing and mentoring young transportation professionals, and for bringing together people of diverse backgrounds and commitments in the pursuit of organizational excellence.