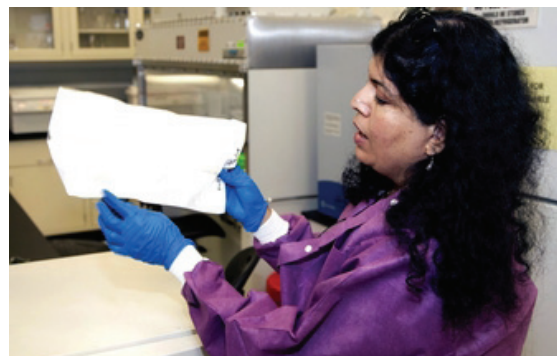


Dr. Alamelu Sundaresan Awarded 2019 Scholarly Research and Creative Activity Award

Dr. Alamelu Sundaresan is the recipient of the Scholarly Research and Creative Activity Award at the University for 2018-2019. She is a Professor in the Department of Biology. Dr. Sundaresan has published more than 50 peer reviewed journal articles, and three patents for growing human bone outside of the body. Dr. Sundaresan directs the Osteo-immunology and Integrative Physiology laboratory at

TSU. She also researches nutritional supplements in human cells and animals to study their ability to enhance the immune system and prevent neurodegeneration. A second role takes the PI, Dr. Sundaresan to the University Of Texas McGovern School of Medicine once a week, where she is an Assistant Professor of Surgery involved in studies of inflammation, toxic, and immune response. A third role for this whirlwind

professor is Visiting Scientist at NASA's Johnson Space Center in Houston. Her space research focuses on study of human immunology in adverse environments, and what happens when the immune system is compromised such as in cancers, microgravity, and autoimmune disorders. She is funded by the National Science Foundation, NASA, Pharmaceutical Industry, and the NIH.

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Health Occupations Students of America State Leadership Conference

The Health Occupations Students of America (HOSA) TSU chapter is a campus organization that empowers future health professionals to become leaders in the global health community through education, collaboration, and experience. The TSU HOSA is housed in the Department of Biology and prepares student for careers in health-related areas.

With continued support from the Office of the Dean, College of Science, Engineering and Technology and excellent guidance from Dr. Ayodotun Sodipe, 14 students were able to attend and compete in this

year's HOSA State Competition held in San Antonio.

TSU students competed with over 250 collegiate level contenders from various schools all over Texas. TSU students held their ground with 10 out of 14 of their members placing top 5 in their competitions, granting them an opportunity to represent TSU at the HOSA National Competition in Orlando, Florida. Members have described this event as an exhilarating experience and a true honor to represent TSU.



2019 BLACK HISTORY MONTH

African Heritage Ice Cream Social and Fashion Show



The College of Science, Engineering and Technology celebrated Black History Month, an annual celebration of achievements by African Americans and a time for recognizing the central role of blacks in U.S. history. On February 18, 2019, a fashion show and ice cream social was organized in the TSU Science Center. Several faculty, staff, and students participated in the fashion show adding a lot of color to the event. The National Women of Achievement, Inc. collected Mana Bags with personal hygiene items that were distributed to students in conjunction with the Fashion Show, celebrating Black History Month.

Excellence in Achievement

2019 Honors Day Convocation

COSET students Patricia Ngantcha, Undergraduate Student, biology major and Vivian Adeoye, Post-Bac Student, Biology Major were honored as double 4.0 majors at Honors Day Convocation held Tuesday, April 9, 2019.

Ms. Ngantcha and Ms. Adeoye with Provost Harris and Interim Dean Saydam (right). Ms. Ngantcha with President Lane (far right)



Spring 2019 Valedictorian

Ms. Annabella Awazi, biology major graduating Summa Cum Laude finished with a 3.977 grade point average.

"Again, corporate effort between eager student and giving faculty being realized. You ALL played an active role in accomplishments gleaned by Ms. Annabella Awazi. Our best to her, throughout her life."

*Dr. Warren E. Williams
Chair, Department of Biology*

Ms. Awazi receiving plaque from Provost Harris and Interim Dean Saydam

Dr. Mehdi Azimi Appointed Member to TRB Standing Committee

Dr. Mehdi Azimi, Assistant Professor in the Department of Transportation Studies has been appointed to the Transportation Research Board (TRB) Standing Committee on Inland Water Transportation as Member-Main Member Slot. His term begins on April 15, 2019 and ends on April 14, 2022.

TRB is one of seven program units of the National Academies of Sciences, Engineering, and Medicine, which provides independent, objective analysis and advice to the nation and conducts other activities to solve complex problems and inform public policy decisions.



Dr. Bobby Wilson Receives Lifetime Achievement Recognition

Congratulations to Bobby Wilson, the L. Lloyd Woods Distinguished Professor of Chemistry, for being selected for inclusion in the Albert Nelson Marquis Lifetime Achievement publication. The Albert Nelson Marquis Lifetime Achievement Award is an honor reserved for biographees who have

demonstrated leadership, excellence and longevity within their respective industries and professions. The award entitles biographees to a listing on the Lifetime Achievers website alongside fellow honorees, as well as a professional announcement detailing induction.



TSU Students get Hands-on Experience with Residual Radioactivity Monitoring

The McGovern Medical School cyclotron has been removed, but trace amounts of radioactivity may still remain in the six-foot thick concrete vault.

That's what students from Texas Southern University (TSU) were tasked with discovering during their visit to McGovern Medical School Jan. 11 as they measured for residual radioactivity in the cyclotron facility.

Led by Mark Harvey, Ph.D., associate professor of physics in the College of Science, Engineering and Technology at TSU, six students with interest in radiation health physics used a variety of

specialized detectors to record the numeric values of the remaining radioactivity as part of an independent research project.

"Two of these students participated in the UTHealth Summer Research Program through scholarship support housed at TSU from funding sources such as the Nuclear Regulatory Commission and National Science Foundation," Harvey explained. "Our study will be a third independent measurement to add to the cyclotron decommissioning data."

"The cyclotron was rendered inoperable by Tropical Storm Allison and

has been sitting dormant for 17 years with the remaining radioactivity slowly decaying away," explained Bob Emery, DrPH, vice president of safety, health, environment & risk management.

The Texas Department of State Health Services required the school to remove the defunct cyclotron by Aug. 31, 2021 – at a cost of \$1 million. Following the evaluations of radiation levels, the department must verify that the former cyclotron concrete vault site may be reconfigured to usable space.

**By Darla Brown, Office of Communications
UT McGovern Medical School, Houston, Texas**



Dr. Mark Harvey, center, leads his group of Texas Southern University students on a study of the decommissioned cyclotron facility, with the help of Dr. Bob Emery, vice president of safety, health, environment & risk management (far right), and Dr. Scott Patlovich, director of environmental health and safety (far left).



STUDENTS

Emerging Researchers National Conference in STEM Graduate Oral Presentation Award

Dayana Abdullah-Smoot began her educational journey at Texas Southern University in the Fall of 2012 pursuing a bachelor's degree in Biology with a minor in Chemistry. Fast forward to the summer of 2019, she remains at TSU while completing the third year of her Environmental Toxicology PhD program under the supervision of Dr. Shishir Shishodia. She is investigating the cytotoxic effects that local watersheds in Harris County can have on HT29 colon cells by identifying the NF-kB cell signaling and cell death pathways. This year alone the research conducted at TSU has taken her to six conferences and has resulted in 3 awards. At the 2019 Emerging Researchers National (ERN) Conference in STEM she placed First for Graduate Oral Presentation in the Category: Ecology, Environmental & Earth Sciences. She placed First for Oral Presentations at the 2019 College of Science, Engineering, and Technology

(COSET) Research Week and received second place for the Student Oral Presentations for the 2019 TSU Research Week. Her unwavering dedication and work ethic have not gone unnoticed, which is why she received the 2019 COSET Outstanding Student Award for the Environmental and Interdisciplinary Science Department. She is an exemplary student and her passion for Environmental Conservation and Sustainability extends beyond her academics. She continues to promote Environmental Conservation and Protection by working at the Downtown Aquarium Houston as a Shark Diver and Educator. She also finds time to give back to the community by volunteering at local animal shelters and the Houston Food Bank. Dayana aspires to pursue a career in either Environmental Control and Life Support Systems (ECLLS) or by working with the Environmental Protection Agency (EPA). Dayana



Abdullah-Smoot is an exceptional student who is passionate about academics and environmental issues. She is proud to stand out from the masses and is honored to represent Texas Southern University!

Outstanding Thesis Award

Ms. Maitreyi Chaganti recipient of the 2018-2019, Outstanding Graduate Thesis award at TSU, has completed a very elegant Masters' thesis in Environmental Toxicology under the supervision of Dr. Alamelu Sundaresan. Her area of research covers two key aspects of health and environmental issues namely immune suppression (in space and on earth) and neurodegeneration.

It explores both these problems in a systematic fashion and suggests

ameliorating strategies with laboratory evidence. This work was presented at the International Conference of Integrative Medicine in Sapporo Japan, in July 2019 and in the European Low Gravity conference in Spain in September 2019. She is already co-author in a peer reviewed tier 1 Neurology journal and will be first author of another publication to be submitted. Ms. Chaganti aspires to work in Pharmaceutical research.



Staff Development Day

Wednesday, May 22, 2019 the Staff Council organized Staff Development Day. "Investing in Ourselves" was the theme of the day. It was a day full of opportunities to foster career and professional development growth. The workshops and activities focused on professional development, retirement, wellness and community in the workplace. The keynote speech delivered by Yolanda Edmond, TSU Senior Associate Vice President of Human, was powerful and encouraging. Staff was delighted with a messenger bag packed with TSU notepad and pen. Continental breakfast and lunch was provided.



PreCollege Engineering Summer Academy

Texas Southern University UNITE Pre-College Engineering program sponsored by the Department of Defense has proven to be an engineering hub for high school students who want to learn more about engineering. The program encourages and helps prepare students to pursue a college education in engineering and related fields. This is being done as part of a national initiative to develop a talented and trained workforce. Tiffany Gilkes writes "I'm really excited to return as last summer was cool, and I liked the field trips, lectures and experiments/

activities. It moved me into loving the aspects of engineering." According to the director of the program, Dr. David Olowokere, "We are able to reach the underrepresented population in tangible ways; by liaising with community stake holders to share information and provide a beacon of hope for our youth. The program has positively affected the youth now, in the present and unquestionably in the future as they can now face the world being college ready, thus making real difference for the students and their family".

The UNITE program has been strategic in exposing high school students to higher learning subject matter such as science, college math, physics and engineering. Some outcomes of the program include the ability to grasp advanced engineering concepts and mastering learning objectives, but more important are the personal takeaways, which are consistency, punctuality, teamwork, independence, networking, and the innate need to strive for best.



Journal Articles

Pan, Y., Chen, S., Qiao, F., Ukkusuri, S. V., & Tang, K. (2019). Estimation of real-driving emissions for buses fueled with liquefied natural gas based on gradient boosted regression trees. *Science of The Total Environment*, 660, 741-750.

Li, Q., Qiao, F., Mao, A., & McCreight, C. (2019). Characterizing the Importance of Criminal Factors Affecting Bus Ridership using Random Forest Ensemble Algorithm. *Transportation Research Record*, 0361198119837504.

N. Glenn Griesinger, Andrea J. Shelton, Jose Guardiola, and Emiel W. Owens, Jr. The Disproportion Statistic. *J. Stat. Appl. Pro. Lett.* 6, No. 2, 1-8 (2019).

D. Vrinceanu, R. Onofrio, J. B. R. Oonk, and H. R. Sadeghpour Efficient computation of collisional I-mixing rate coefficients in astrophysical plasmas *Astrophysical Journal*, 878, in print (2019)

Z. Felfli, T. Karman, V. Kharchenko, D. Vrinceanu, J. F. Babb and H. R. Sadeghpour. Theory and simulation of spectral line broadening by exoplanetary atmospheric haze. *Monthly Notices of the Astronomical Society*, 482, 1330 (2019).

Conferences

Fengxiang Qiao and Qing Li. (2019). Impact Assessment of Pavement Retrofit on Human Environment Impacts along Interstate Freeway I-69 in Houston. P19-20888 98th TRB Annual Meeting, January 13-17, 2019. Washington DC, USA.

Mahbuba Khan, Fengxiang Qiao, Lei Yu, (2019). Determining Correlations between Vehicular Emissions and Pavement Roughness through Wavelet Decomposition Techniques. 19-05978. 98th TRB Annual Meeting, January 13-17, 2019. Washington DC, USA.

Jianbang Du, Qing Li, Lei Yu, and Fengxiang Qiao, (2019). Assessment of Community Impact of Isolated and Integrated Ramp Metering Strategies on Ozone Precursor Chemicals. P19-20887. 98th TRB Annual Meeting, January 13-17, 2019. Washington DC, USA.

Kyungki Kim, Omprakash Gnawali, Lu Gao, Fengxiang Qiao. (2019). Real-Time Location Tracking and Rule-Based Checking for Work Zone Safety Monitoring, P19-20031. 98th TRB Annual Meeting, January 13-17, 2019. Washington DC, USA.

D. Vrinceanu, R. Onofrio and H. R. Sadeghpour. Efficient computation of collisional I-mixing rate coefficients in astrophysical plasmas. DAMOP Meeting, Milwaukee WI, May 2019.

N. Kulathunga, D. Vrinceanu and Y. Wang. Study of Domain-Specificity in Customer Reviews Classifications using Supervised Learning. Workshop of Mission-critical Big Data Analytics, Prairie View April 2019.

D. Vrinceanu. Intrashell coherent population transfer among degenerate Rydberg states. DAMOP Meeting, Ft. Lauderdale FL, June 2019.

Awards

Dr. Bobby Wilson, PI, National Science Foundation titled: Houston Louis Stokes STEM Pathways and Research Alliance. \$4M.

Dr. Fengxiang Qiao received the First Place "Faculty Poster Presentation" Award from Texas Southern University Research Week. March 28, 2019.

Innovative Transportation Research Institute (ITRI) received the Third Place Award from Texas Southern University Research Week. March 28, 2019.

TSU to hosted U.S. Department of Energy Conference Reception

The U.S. Department of Energy's Office of Economic Impact and Diversity held a reception at TSU on Tuesday, May 14, as a prelude to its annual conference titled "Equity in Energy," held on the following day at the University of Houston Alumni Center. The reception took place in the lobby of the TSU Science Center

from 6-8 p.m. TSU President Dr. Austin Lane, along with Kwame Canty, director of external affairs with the Edison Electric Institute, provided a welcome, along with the Honorable James Campos, head of the DoE's Office of Economic Impact and Diversity, who gave opening remarks. Dr. Bobby Wilson, the L. Lloyd

Woods Distinguished Professor of Chemistry, moderated a science, technology, engineering and math (STEM)-related panel discussion on technological innovation and increasing participation and outcomes in STEM fields for historically underrepresented demographics.

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