# OPEN HOUSE ALUMNI AND PARTNERSHIP LUNCHEON



Thursday, October 20, 2011 11:00 A.M. - 2:00 P.M.

TSU Science Center Atrium 3100 Cleburne Street Houston, Texas 77004





#### Viewing of Posters and Networking

## Opening - Lunch is Served

Dr. Oscar H. Criner, Interim Associate Dean

### Welcome to the College and Purpose of the Event

Dr. Oscar H. Criner, Interim Associate Dean

## State of the College of Science and Technology Report of Annual Activities

Dean Lei Yu

#### **Faculty Presentation**

Student Presentation

#### **Board of Advisors Perspective**

Mr. Paul Simmons, Chairman, COST Board of Advisors

#### Recognition of Partner of the Year

Dr. Desirée Jackson and Mr. Paul Simmons

#### Introduction of Keynote Speaker

Dean Lei Yu

#### Keynote Address

Dr. Naomi W. Ledé

#### Alumni Activities

Mr. Perry Miller, Acting President, COST Chapter, TSUNAA

## Presentation of 2011 Distinguished Alumni Awards

Dr. Oscar H. Criner, Interim Associate Dean

#### **Closing Remarks**

Ms. Carolyn Oliver, TSU Director of Development

**Dr. Lei Yu**Dean, College of Science and Technology
Texas Southern University



Welcome to the second annual College of Science and Technology (COST) Open House - Alumni and Partnership Luncheon. I thank you for coming today. We have strived to advance COST to new heights during the past year, enhancing the quality of our programs, addressing the needs of our students, and serving the community.

Students, parents, partners, alumni, and friends have taken great strides, worked diligently, and often times fought hard battles to form collaborative relationships to achieve the COST mission. Today we celebrate those relationships and accomplishments, and we salute those who have gone above and beyond to show their support and commitment to the college and the institution.

The theme for today's luncheon is "Fulfilling the Community's Need for STEM Professionals" and we are delighted to have our key note speaker Dr. Naomi W. Ledé. Dr. Ledé has been a distinguished member of our faculty and administration and we remember her today for all of her contributions to our college. I am confident you will find her message both beneficial and inspiring.

In addition, we are very pleased to recognize our distinguished alumni, and partner of the year for their leadership, achievement, and commitment to the college.

I would like to thank the college Research Committee, the Fundraising, Events and Community Service Committee, COST faculty and staff, and the entire COST Board of Advisors for their hard work in ensuring the success of this event. Furthermore, I would like to express my gratitude to each of our sponsors for their commitment and contributions to our students.



Paul Simmons
President, Paul Simmons & Associates, Inc.
Bellaire, Texas
Chair, Board of Advisors
College of Science and Technology

#### Ladies and Gentlemen,

Welcome to the College of Science and Technology (COST) Alumni and Partnership Luncheon. My name is Paul Simmons, and I have the privilege of being the chairman of the advisory board of the College. The board consists of the dean of the college and upper level faculty representation from all 10 departments of the college. In addition, there is representation from the private sector and government. Shell Oil, Marathon Oil, KBR, NASA, City of Houston Aviation, Public Works and Engineering, and the Metropolitan Transit Authority are some of the more recognizable organizations on the board. The 30 plus members of the board represent close to 1,000 years of academic and professional experience in the area of science and technology.

Our charge is to bring to the students of the college the strongest educational experience possible and prepare them to fully participate in what we all know will drive the economies of the world into the future - science and technology.

We plan to further partner with the private sector, locally and nationwide, in order to import into the college cutting edge technologies and techniques, to research them, to teach those techniques and to empower our students with these technologies. The building of a strong alumni base to assist in the development of our students is also high on the board's priorities.

Ladies and Gentlemen, it is an honor to have you here today with us. If you have any questions, please stop me later or contact me through the dean's office. I shall be more than happy to assist.

Dr. Naomi W. Ledé
Chair of the Board, Samuel Walker Houston
Museum and Cultural Center, Huntsville
President, National Alumni Association of Sam
Houston High School



Dr. Naomi W. Ledé is a national and international scholar in transportation planning and management. She was a member of our faculty and was named Executive Director Emeritus of the Center for Transportation Training and Research. A former Vice President for Institutional Advancement at Texas Southern University (TSU), she retired as Chairperson of the Department of Transportation Studies and Distinguished Professor at TSU in 1997.

She established the first transportation degree program at a historically black university in Texas. In 1984, she developed Master of Science in Transportation Planning and Management Degree program at Texas Southern University along with the Center for Transportation Training and Research. Two years later she developed the first bachelor's degree in Airway Science (Aviation) in Texas at Texas Southern University. That program has grown and is housed in the Department of Aviation Science and Technology today.

She graduated with honors from four institutions. She received her Bachelor of Arts Degree from Mary Allen College, pursued graduate study at Bradley University in Peoria, Illinois, and received a Master of Arts Degree in Social Psychology and Political Science from Texas Southern University. She received an additional Master of Arts in Urban Affairs (Transportation) from the University of Texas at Arlington where she received a "Distinguished Alumni Award." Dr. Ledé received her Doctorate of Education Degree, with high honors, from the

University of Houston in 1979.

Dr. Lede has received numerous political appointments. She was appointed by Governor Bill Clements as a founding member of the Board of the Texas Guaranteed Student Loan Corporation, 1980-83; was appointed to the Board of Directors of the Metropolitan Transit Authority of Harris County by Mayor Kathryn J. Whitmire; she was appointed to the Governor's Public Transportation Advisory Committee by Governor Ann Richards; Governor George W. Bush appointed her to the Board of the Texas Department of Protective and Regulatory Services; and Governor Rick Perry appointed her to the Texas Emissions Advisory Committee.

She testified as an expert before the President's Commission on Critical Infrastructure Protection in 1997. Dr. Ledé served as a member of the Technical Task Force of the National Research Council, National Academy of Sciences, and as a member of the Women in Transportation National Board. A prolific writer, she has published studies pertaining to socioeconomic and educational issues as well as scientific studies in transportation planning and management.

Dr. Ledé along with her husband, Wilson A. Ledé, established Heritage House Exhibits, a community center in West Huntsville to serve adults and children. She retired a second time from her position as Senior Research Scientist at the Texas Transportation Institute, Texas A&M University System.

#### **Department of Aviation Science and Technology**

Vernon Baker, M.S. Academic Advisor, Department of Aviation Science and Technology, TSU

Mr. Baker's love for aviation began at an early age as both of his parents were officers in the United States Air Force. Born in New Orleans, Louisiana, he grew up in San Antonio, Texas. After high school, Mr. Baker joined the United States Air Force and became an Air Traffic Controller, stationed at



Carswell Air Force Base, in Fort Worth, Texas. Mr. Baker was hired by the Federal Aviation Administration (FAA) in September, 1978. In March 1983, Mr. Baker began working for the Houston Police Department as an Emergency Communications Dispatcher and eventually transferred to the Aviation Department at Bush Intercontinental Airport (IAH), where he worked his way up from an Operations and Safety Officer to Assistant Director of Operations. He worked for the FAA from 1997 to 1999 as a Civil Aviation Security Specialist at IAH and was the alternate K-9 coordinator for the K-9 Explosive Detection Program. After retiring from the Houston Airport System in December, 2001; Mr. Baker returned to the Transportation Security Administration (TSA) as the Stakeholder Manager for IAH. In November, 2004, Mr. Baker was appointed Federal Security Director of William P. Hobby airport, where he served until December 2006. Mr. Baker was then reassigned to IAH in December, 2006 as the Deputy Assistant Federal Security Director of Screening. Mr. Baker retired from TSA in July, 2008 to pursue a career in the private sector. Mr. Baker obtained a Bachelor of Science Degree in Airway Science from Texas Southern University in May 1991 and a Master's Degree in Transportation Studies at Texas Southern University, on August 6, 2011.

### **Department of Biology**

Arnold K. Carothers, M.D. Family Medicine Clinic Houston, Texas

Dr. Carothers is a native Houstonian and completed his B.S. degree in Biology at Texas Southern University. He completed his medical education at The University of North Texas Health Science Center College of Osteopathic Medicine. He is a Diplomat of the American Academy of Family Physicians.



He has practiced family medicine for the past 17 years. Dr. Carothers did his residency training in Beaumont, Texas at St. Elizabeth Hospital. Following his residency training, he served his country in the United States Navy caring for our servicemen and their family members at an overseas duty station in Okinawa, Japan. Dr. Carothers is an active member of professional organizations such as the American Academy of Family Physicians and the American Osteopathic Association. His hobbies include fishing, golf and wood work. In 2010, Dr. Carothers received both the Compassionate Doctor Recognition Award, and the Patient's Choice Award. He is married to Sonya Carothers, MSB, FNP-BC. Together they operate the Family Medicine Clinic (FMC) in Houston, Texas, where they take pride in caring for the entire family. Their mission is "To Provide a Healthier You".



#### **Department of Chemistry**

Charlotte Baker, Ph.D. Harris County Institute of Forensic Sciences Houston, Texas

Dr. Charlotte Baker is a Toxicologist for the Harris County Institute of Forensic Sciences. Dr. Baker received her Ph.D. degree in Environmental Toxicology from Texas Southern University. She also holds a Bachelor of Science degree in Chemistry from Sam Houston State University and a Master of Science

degree in Chemistry from Texas Southern University. Her love for forensics took form when she completed an internship with the Harris County Institute of Forensic Sciences in the Toxicology laboratory. The internship facilitated her ability to collaborate with the Harris County Institute of Forensic Sciences for her dissertation entitled "Hair as an Indicator of Exposure to Pesticides". Dr. Baker has won numerous honors and awards such as the Proctor and Gamble Fellowship Award, and the Agilent Technologies Graduate Development Fellowship. She has also received the Research Centers Minority Institutes Graduate Research Assistantship and Ph.D. Environmental Toxicology Fellowship. Dr. Baker was an Environmental Medicine Rotation Program Fellow for CDC/ATSDR through the Association of Minority Health Professions Schools. She has also been an invited speaker for the Young Forensic Science Forum/American Academy of Forensic Science. She is currently the president for the Gulf Coast Chapter of the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers. She is also the owner of Heaven's Touch of Glory, a premier wedding and event company.



#### **Department of Computer Science**

Sovandara Chea, B.S.
Continental Airlines Headquarters
Houston, Texas

Sovandara Chea is currently a full time employee at Continental Airlines headquarters in Houston. He received his B.S. degree with Magna Cum Laude honors in Computer Science at TSU in 2009. He is currently a graduate student in the Computer Science Department with a 4.0 GPA for his

graduate classes. His Masters thesis is concentrated on Wireless Sensor Networks. Some of his previous research and internships include "TSU Asset Management Engine (TAME)" presented at Research Week 2009 (TSU, Houston TX); "Explore Data Graphically for Resource Management (Data Analysis)" presented at the National Association of Mathematicians (NAM) MathFest XIX (University of the District of Columbia, DC); "Information Hiding in Computer and Cyber Security" presented at the COST Open House and Research Week 2010 (TSU, Houston TX); "Expert Finder" presented at Data Science Summer Internship 2010 (University of Illinois Urbana-Champaign, Urbana IL), and the NAM MathFest XX (Miami Dade College, Miami FL). Mr. Chea successfully completed an internship at United Space Alliances (contractor for NASA) from 2006 to 2008, an internship at TSU from 2008 to 2010, and an internship at the University of Illinois Urbana-Champaign in summer 2010.

#### **Department of Engineering Technology**

Bryce Redhead, B.S. Field Engineer, General Electric Houston, Texas

Bryce Redhead, oldest child of Joye and Gaberial Redhead, graduated from Elkins High School in 1998 where he played Football. College bound, he then attended TSU in the Fall of 1998. With an Interest in Aquatic Science, he joined the US Navy and served for four years as an Electronic Technician.



While stationed in Japan, Bryce performed regular preventive and corrective maintenance to an Integrated Defense System and the ship's main radar system. After returning home, Bryce resumed his studies at TSU where he obtained a bachelor's degree in Electronic Engineering Technology in 2009. He accepted a job in Washington D.C with Honeywell, where he worked on Base Perimeter Security Systems and provided software and hardware network capabilities and corrections. After a year, looking to broaden his horizons for an opportunity in oil and gas, he returned to Houston, to work as a Field Engineer at General Electric. Bryce now travels the world while working on Blow Out Preventer Systems as well as Control and Electrical Systems.

# Department of Environmental Science and Technology

Noreen Khan-Mayberry, Ph.D. NASA Johnson Space Center Houston, Texas

Dr. Noreen Khan-Mayberry is an environmental toxicologist, space toxicologist and technical expert on food toxicity, environmental remediation, and green technologies. "Dr. Noreen" has spoken extensively on topics

and green technologies. "Dr. Noreen" has spoken extensively on topics relating to environmental and spaceflight toxicology, reducing exposures to toxins and toxicants, nutritional and food toxicity, and leadership. As a Space Toxicologist for NASA, she has developed human health standards and toxicological evaluations for space exploration. She has successfully completed her administrative responsibilities as a Space Toxicologist, US Chair of the International Air Quality Working Group, Project Manager of the Advanced Environmental Health Project and Technical Manager of the Lunar Airborne Dust Toxicology Assessment Group. Currently, Dr. Khan-Mayberry is on assignment at NASA's Jet Propulsion Laboratory where she serves as a Safety Officer, Scientific Technical Expert and Technical Management for the NASA Office of Inspector General. She is an editorial member of the Journal of Clinical Toxicology and The International Journal of Disaster Advances. She has authored a number of research articles in Space Toxicology and planetary dust toxicity. She is a Fellow of the International Congress of Disaster Management and a member of the Society of Toxicology and the American College of Toxicology. She has been honored as a 2010 Technology Rising Star and a distinguished guest speaker at the Women as Global Leaders international conference, among several other awards. Dr. Khan-Mayberry has been featured on talk radio shows as a guest expert on environmental and nutritional toxicity.



### **Department of Industrial Technology**

Peter A. Stoute, B.S. OST/Almeda Corridors Redevelopment Authority, Houston, Texas

Peter Anderson Stoute began his education at St. Mary's Academy, Roseau, Commonwealth of Dominica where he received his high school diploma graduating with honors in 1998. After receiving his high school diploma, he enrolled in Clifton Dupigny Community College, Roseau, Commonwealth of

Dominica and received an advanced degree in Sociology in 2000. In 2006, he enrolled at Texas Southern University where he decided to pursue a degree in Construction Technology. In 2010, he graduated Cum Laude with a Bachelor of Science degree from the Department of Industrial Technologies. During his matriculation through Texas Southern University, Peter worked as a student assistant in the College of Science and Technology where he worked closely with faculty and students in the Construction Technology program. Peter has received several training certificates relative to Computer Technology. In 2008, he received an internship with the OST/Almeda Corridors Redevelopment Authority – TIRZ #7, Houston, Texas where he served as Capital Projects Coordinator. His duties included working closely with the Executive Director and Program Management Consultant in overseeing all aspects of its capital improvements program from planning through final completion. In 2010, he was given a permanent position at OST/Almeda Corridors as Capital Projects Manager where his duties include managing Authority-owned properties and serving as Capital Projects Liaison between the Authority and the Greater Southeast Management District.



#### **Department of Mathematics**

Roderick B. Holmes, Ph.D.
Department of Mathematics
Texas Southern University, Houston, Texas

Dr. Holmes earned his Ph.D in Mathematics from the University of Houston in 2003. He is the fourth African American, the second male, and the second graduate of Texas Southern University to receive a Ph.D in Mathematics from the University of Houston. Currently he is an Assistant Professor at Texas

Southern University in the Department of Mathematics. Dr. Holmes has served in the Tutorial Ministry, and on the Audio Visual and TV committee at Lily Grove Baptist Church. He was an editor for the Lily Grove's Radio and TV Broadcast "A Call to Joy", Pastor, Terry K. Anderson. He serves on the COST Alumni Steering Committee and the University's Council on Admissions. He also serves as an advisor for the Society of Urban Mathematicians (SUM) which is an organization made up of Mathematics Majors. He is a member of the TSU National Alumni Association and TSU Alumni and Friends at Lily Grove Baptist Church. Dr. Holmes and his wife Laura have been married for 7 years and have a 3-year old daughter.

#### **Department of Physics**

Brandon A. Georgetown, B.S. H-LSAMP Bridge to Doctorate Program University of Houston, Houston, Texas

Mr. Brandon Aaron Georgetown is the proud son of two Texas Southern University Alumni: Deborah and Aaron Georgetown. He attended Rowlett High School where he was a triple letterman: member of the Mighty Eagle Marching Band, Texas Scholar, and Captain of the Varsity Basketball team.



He received All District Honors in basketball while maintaining a 3.5 cumulative GPA. In the summer of 2004, for his musical achievements, he was awarded a sixteen day, seven country European tour as a member of the Texas Lonestar Ambassadors of Music. Mr. Georgetown attended Texas Southern University on a full scholarship through the Frederick Douglass Honors Program and the Houston Louis Stokes Alliance for Minority Participation (H-LSAMP) program. He majored in both physics and mathematics, pursuing the newly created Health Physics track. He held the position of Vice-President for the Society of Physics Students. He was awarded a fellowship at Tuskegee University's Center for Advanced Materials, conducting research on the environmental effects of carbon fibers reinforced with nanotubes. In 2011 Mr. Georgetown was accepted into the H-LSAMP Bridge to the Doctorate fellowship program at the University of Houston where he is currently enrolled in the Ph.D. program in Civil and Environmental Engineering. He is doing research on the effects of dioxins in the Houston Ship Channel and Galveston Bay system. His plans are to receive the Ph.D. in May 2015.

#### **Department of Transportation Studies**

John B. Etta, M.S. Port of Houston Authority Houston, Texas

John B. Etta is the Facilities Manager for Barbours Cut Terminal and the Bayport Container Terminal of the Port of Houston Authority. He oversees construction, staffing, training, and supervision of office personnel. In addition, Etta oversees the Barbours Cut Intermodal Rail facility and works



closely with all railroad companies servicing the Port of Houston Authority. Etta joined the Port Authority in July 1994 as an Assistant Operations Manager at the Barbours Cut Terminal. In 2001, he was promoted to Intermodal Administrative Manager where he trained and supervised all of the Barbours Cut gate personnel in the implementation of the Navis Sparcs and Express system. During continued development at the Bayport Container Terminal in 2009, he was promoted to his current position. Since January of 2006, John has served as a regional member on the Mayor of Houston's International Affairs and Development Council for Africa. The council is dedicated to the preservation, promotion, and continued growth of Houston as a renowned international city. Born in Cameroon, West Africa, Etta earned a Bachelor of Science degree in Computer Science and a Master of Science degree in Transportation Management and Planning, both from TSU.

Joseph and Lori Flowers
Project Manager
Completion Engineering
Schlumberger, Houston, Texas
Member, COST Advisory Board



Four things have inspired our interest in the TSU College of Science and Technology. First and foremost, the opportunity to help students achieve their full potential in a supportive environment would, by itself, be inspiration enough. The fields of study in the College encompass a wide range of learning and opportunity for these students to achieve greatness, while helping our world move forward.

Our desire to support the Houston community has also been an important consideration. We love the city of Houston, and appreciate that citizens must create and maintain a healthy environment for Houston to continue to thrive and grow. The College is a part of that thriving environment, and in turn it supports its own community through outreach and K-12 programs. Students that are attracted to TSU, are attracted in part because it is in Houston. Some have a history (such as growing up) in Houston; others are happy to move here. Either way, they are in a prime position to become committed and productive members of the Houston community. Another consideration is the desire for knowledge. Incubators of research and development must be built and fueled, and our experience has shown that they will not always be housed in the "top ranked" institutions. A certain portion of this innovation we require will always come from emerging stars, and our vision is for TSU COST to be one of those emerging stars.

In my capacity as an Engineering Manager at Schlumberger, I am acutely aware of the value of relationships, built over time, between firms and universities. Local firms can have a huge impact on the priorities and environment of the curricula at a partner school. Everything from high-level priorities (such as major offerings and program decisions) down to lab projects and independent study assignments can be coordinated to the firm's and the school's mutual benefit. It is this type of relationship I would like to see established between the College of Science and Technology and many private and public institutions in the Houston area such as Schlumberger.

For these reasons we have chosen to support the school, and we wish all the best for the TSU College of Science and Technology as it moves forward into the future. We appreciate the opportunity to participate.

## College of Science and Technology Received \$4.8 Million CREST Award from National Science Foundation

The National Science Foundation (NSF) announced an award of \$4,887,004 over five years beginning 2011 to Texas Southern University to support its proposed "Center for Research on Complex Networks," a new NSF Center of Research Excellence in Science and Technology (CREST).

The new Center's multiple disciplinary team, led by Drs. Wei Wayne Li (PI), Lei Yu (Co-PI) and C. J. Tymczak (Co-PI), as well as Drs. Oscar Criner (Director of Education) and David Olowokere (Director of Technology Transfer), comprises a total of 14 world-class faculty scholars representing 6 different departments in the College of Science and Technology, including the Departments of Computer Science, Transportation Studies, Physics, Engineering Technology, Mathematics, and Chemistry. The funded Center will have a great impact on students at TSU by financially supporting a minimum of 15 undergraduate and graduate students each year during the next five years, providing them the opportunity to work with faculty on cutting-edge research and development.

# College of Science and Technology Awarded First Prize for Best Decorated Tent at the TSU Founder's Day Celebration 2011













Ike Allen Linbeck Group



Joseph Flowers Schlumberger



Rudy Gomez KBR Services Inc.



Larry V. Green Houston Works USA



Chris A. Hudson Morris Architects



Carnelious Jones OMO Science, Energy, and Technology



C. C. Lee STOA/Golemon/Bolullo Architects



Tracy Munoz RealEC Technologies



Dorothy Rasco NASA Johnson Space Center



Paul Simmons Paul Simmons & Associates



Michael Smith Marathon Oil Company



Murdock Smith Consultant



Kimberly Williams Metropolitan Transit Authority



Frazier Wilson Shell Oil Corporation Foundation

## college administration



Professor and Dean

#### OFFICE OF THE DEAN



Oscar H. Criner Professor and Interim Associate Dean



James W. DuMond Associate Professor and Interim Associate Dean



Desirée A. Jackson Associate Professor and Interim Assistant Dean



Charlotte Whaley College Business Administrator III



Dolly Spencer Sr. Administrative Assistant



Tioka Freeman Administrative Assistant

ENGINEERING TECHNOLOGY

AIRWAY SCIENCE AND TECHNOLOGY



Mark A. Sherman Associate Professor and Chair

#### **BIOLOGY**



Warren Williams Associate Professor and Interim Chair

#### **CHEMISTRY**



John B. Sapp Professor and Chair



COMPUTER SCIENCE

Wei Wayne Li Professor and Interim Chair



David Olowokere Professor and Chair



Shirley L. Harris Administrative Assistant



Helen P. Cockrell Administrative Assistant



Delois S. Johnson Administrative Assistant



Nadereh Jahedmotlagh Administrative Assistant



Lulueua A. Nasser Administrative Assistant

ENVIRONMENTAL SC. AND TECHNOLOGY



Lei Yu



Rachel Mizzell Administrative Assistant

**INDUSTRIAL TECHNOLOGY** 



Jesse E. Horner Associate Professor and Interim Chair



Lulueua A. Nasser Administrative Assistant

**MATHEMATICS** 



A. Serpil Saydam Associate Professor and Chair



Nia Eakins Administrative Assistant

**PHYSICS** 



Carlos Handy Professor and Chair



Shirley L. Harris Administrative Assistant

TRANSPORTATION STUDIES



Yi Qi Associate Professor and Interim Chair



Paula Eakins Administrative Assistant

# "Fulfilling the Community's Need for STEM Professionals"



Model of the Future College of Science and Technology Building

College of Science and Technology
Texas Southern University
3100 Cleburne Street, Houston, Texas 77004
Tel: 713-313-7009; Email: whaley\_cs@tsu.edu
www.cost.tsu.edu