In early October, thousands of middle and high school students, educators, and parents from across the Rio Grande Valley converged at The University of Texas Rio Grande Valley for the Hispanic Engineering, Science, and Technology Week (HESTEC).

Now in its 16th year, HESTEC is a nationally recognized model program that is designed to promote science, technology, engineering, and math (STEM) careers to students of all ages.

The Rio Grande Valley, the state of Texas, and the country will face continuous challenges without an increase in the number of students entering the STEM fields. From worker shortages to the loss of high-paying jobs to the loss of critical research and manufacturing resources, the lack of STEM graduates will have a significant impact on the country.

To address this issue, UTRGV will grow and expand the reach of HESTEC to attract a larger number of students, teachers, parents, corporate and congressional leaders to develop new programs and approaches to address the need of a STEM workforce and more professionals at a regional, national, and global level.

UTRGV is committed to preparing the next generation of students who will Change the World through STEM.

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Message from The President

On behalf of The University of Texas Rio Grande Valley, I want to thank our corporate, educational and federal partners, donors and special guests for helping make Hispanic Engineering, Science and Technology (HESTEC) Week, a huge success.

The week began with the announcement that UTRGV had received a U.S. Department of Education $21.2 million grant over the next seven years to operate the Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP).

The GEAR UP grant is a momentous achievement for our university as we work to inspire more students to pursue higher education and careers related to science, technology, engineering and mathematics (STEM). The grant will also support students participating in programs like HESTEC that help develop the next generation of scientists, doctors and engineers.

HESTEC Week enabled thousands of middle and high school students, educators and parents to hear inspiring stories from motivational speakers, take part in hands-on activities and interactive educational exhibits, compete in dynamic robotics competitions, and so much more.

The growth and success HESTEC has experienced over the last 16 years would not have been possible without the support of so many. To all who collaborate in this venture, your investment in HESTEC is truly Changing the World Through STEM.

We are grateful for your support.

Guy Bailey,
UTRGV President
The Hispanic Engineering, Science and Technology (HESTEC) Week opened with a Legislator’s Reception and Awards Dinner on Sunday, Oct. 1, at the University Ballroom at the UTRGV Edinburg Campus.

Sponsored by International Bank of Commerce, about 200 people attended the event that included U.S. Congressmen Henry Cuellar and Vicente Gonzalez.

Now in its 16th year, HESTEC Week brings thousands of middle and high school students, educators and parents to UTRGV campuses and classrooms to take part in presentations by world-renowned speakers, interactive educational exhibits, dynamic robotics competitions and more.

The weeklong conference is designed to spur interest in the science, technology, engineering and mathematics (STEM) fields for middle and high school students, and has reached more than 1 million people.

One of the highlights of the evening was the presentation of the HESTEC CIENCIA award. Dr. Tina Atkins, longtime educator, was the administrator for the Center for Excellence in College, Career and Life Readiness at Region One Education Service Center. Recently retired, she was honored for her many years of service with the Rubén Hinojosa “Champions in Engineering and Science Advancement” (CIENCIA) Award.

Atkin’s family and many of her colleagues from the Region One Education Service Center (ESC) were in the audience to see her receive the award.

“In our family, we believe strongly that we only rise by lifting others and when we lift others they lift us up,” said Atkins. “We all come together to impact an entire region. It cannot happen without elected officials, business partners and our educational institutions working together.”

Atkins led regional college access efforts for deep South Texas, including oversight of three Region One ESC GEAR UP partnerships supporting more than 25,000 students in 29 school districts, working with seven college and university systems along the Texas-Mexico border. GEAR UP has been an integral part of HESTEC since it began in 2001.

Former U.S. Congressmen Rubén Hinojosa, along with Congressmen Cuellar and Gonzalez, presented the award to Atkins. Hinojosa was the recipient of the first CIENCIA award, bestowed in 2016.

The award draws its name from the Spanish word for “science” and is based on an acronym for “Champions in Engineering and Science Advancement.” The award, which carries visual symbols related to STEM, was designed by two UTRGV students.

“We all come together to impact an entire region. It cannot happen without elected officials, business partners and our educational institutions working together.”

- Dr. Tina Atkins

2017 “Champions in Engineering and Science Advancement” (CIENCIA) Award.

UTRGV is especially grateful to International Bank of Commerce for sponsoring the Legislator’s Reception and Dinner.

Thank you to Shell, Toyota, H-E-B, UTRGV Mathematics and Science Academy, U.S. Navy, IBM, and all our donors for their generous support in making HESTEC 2017 a success.
UTRGV was awarded $21 million over the next seven years under the U.S. Department of Education Gaining Early Awareness and Reading for Undergraduate Programs (GEAR UP) program. This is the second-largest grant amount awarded to a UT System school.

UTRGV President Guy Bailey called the grant “the icing on the cake” for the university and said the grant would not have been possible without the support of the Valley’s congressional leaders, U.S. Representatives Henry Cuellar, Filemón Vela and Vicente Gonzalez.

GEAR UP is designed to increase the number of low-income students who are well prepared for postsecondary education. For this grant, called College in ACTion, UTRGV is forming a partnership with the Brownsville Independent School District, La Joya Independent School District and Edinburg Consolidated Independent School District to provide support services to about 3,900 seventh-grade students and their teachers.

Dr. Sylvia Leal, associate vice president for Student Educational Outreach collaborated with Cynthia Valdez, executive director of student educational outreach on the grant application. Leal said the selected schools include some of the most at-risk, high-need students in the Valley. She said parents and students understand the benefits of college, but they and the schools that serve them sometimes lack the resources to help students achieve that goal. The grant will allow for collaboration and participation in programs such as HESTEC.
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Brownsville Campus
November 4, 2017
December 9, 2017
February 3, 2018
April 7, 2018

Edinburg Campus
October 28, 2017
December 2, 2017
February 10, 2018
April 14, 2018

All sessions start at 10 a.m.
MAIN Building, Room 2.112 – One West University Blvd., Brownsville
MSAC Building, Room 1105 – 1201 West University Dr., Edinburg

For more information or special accommodations, call (956) 665-2345.
Stephen Ritz considers himself a farmer, but he doesn’t consider the fruits and vegetables he and his students plant as his main crop.

“I’m a people farmer,” Ritz, the CEO of Green Bronx Machine based in the South Bronx, said. “My job is to plant seeds.”

Ritz was the keynote speaker at Educator Day. Sponsored by Shell, more than 100 educators heard his story about how he has been educating children through agriculture. His efforts have improved the health and educational outcomes of students in the South Bronx and garnered accolades throughout the world.

He encouraged the packed room of educators to continue doing their part to improve the lives of their students. “We are the gatekeepers of equity and opportunity,” he said.

Educator Day also featured a discussion on STEM education and preparing students for global leadership. The panel included congressional representatives, university leaders, superintendents and representatives from U.S. Navy, H-E-B and Shell.

“If your students are thinking that once they graduate from college, learning is over with. I am here to tell you different. We are in a world where we have to continue to learn all the time,” said Tina Aguirre, ITSO 2.0 Programme & Transformation Manager ITSO – Strategy & Planning, Shell Downstream Inc.

“You have to be innovative; you have to think outside the box. The more people that you surround yourself with, the more open minded you are and the better solutions you are going to have.”

Educators also heard from Scott Thompson, assistant executive director of the Panasonic Foundation, one of the newest sponsors to HESTEC.

UTRGV, together with ExxonMobil, honored Jerri Pineda, a math teacher at Santa Rosa High School, and Ricardo Ramirez, a science teacher at San Benito High School with the UTRGV ExxonMobil Educator Day awards.

Another highlight of Educator Day was the annual Superintendents Leadership Summit. Andre H. Sayles, Ph.D., Acting Director of the Office of Economic Impact and Diversity with the U.S. Department of Energy and Kate Rogers, Executive Vice President of The Holdsworth Center spoke at the summit. University and public school leaders also joined with legislators for a dialogue on STEM issues and challenges.

"We are in a world where we have to continue to learn all the time. You have to be innovative; you have to think outside the box." — Tina Aguirre, Shell Downstream Inc.

UTRGV is especially grateful to Shell for sponsoring Educator Day.

Thank you to Toyota, H-E-B, UTRGV Mathematics and Science Academy, U.S. Navy, IBM and all our donors for their generous support in making HESTEC 2017 a success.
INSPIRATION NEVER DIES

Since its inception in 2002, HESTEC has increased awareness of the science, technology, engineering and mathematics (STEM) fields among students, parents, educators and community members. HESTEC is also responsible for a boost in high school graduation rates and increased participation rates of Hispanics in postsecondary education in the Rio Grande Valley.

LET’S GO.
Teachers make a difference in the lives of students. One of the highlights of Educator Day is the recognition of the teachers honored with the UTRGV ExxonMobil Educator Day awards.

Ricardo Ramirez, science teacher at San Benito High School and Jerri Pineda, Math teacher at Santa Rosa High School were chosen for their dedication, commitment and passion for teaching.

“Teaching is one of the most rewarding careers not just because we get to work with students but because we get to see them grow and we get them to push their own limits to see what they are capable of achieving,” said Ramirez.

Educators are nominated by their peers for selection by the Region One Education Service Center. The educators receive an all-expense paid trip to a national conference of their choice.

“My philosophy as a math teacher is everyone can learn math. Some students tell me math is difficult or is boring. As a teacher, I always try to make learning interesting and innovative so students can apply math to the real world and make math more interesting and fun,” said Pineda.

Samantha Silvas presented the awards to the recipients on behalf of ExxonMobil. Silvas is the Business Support Advisor for the Upstream Research Company in ExxonMobil’s Global Services Company. Silvas is an alumna of the legacy institution, UT Pan American.

UTRGV is especially grateful to ExxonMobil for their support of the ExxonMobil Educator Day awards.

Thank you to Shell, Toyota, H-E-B, UTRGV Mathematics and Science Academy, U.S. Navy, and IBM and all our donors for their generous support in making HESTEC 2017 a success.

Ricardo Ramirez and Jerri Pineda with Veronica Gonzales, UTRGV Vice President for Governmental and Community Relations and Samantha Silvas, Business Support Advisor for the Upstream Research Company in ExxonMobil’s Global Services Company.
What is my passion?
I love engineering. Find your passion... learn it... seek it... follow it!

- Daniel Pittaluga, Toyota Motor North America

The field house on the Edinburg campus was rocking for Student Leadership Day with Tyraine Ragsdale or better known as Grand Hank, the Hip-Hop Scientist.

While science teachers don’t typically use elements like hip-hop music in their lesson plans, Ragsdale does. He is a master scientist and television personality who is trying to change the way science teachers ... well, teach.

A former research chemist for Johnson & Johnson, Ragsdale presented his “edutainment” show to 265 high school students and chaperones from 14 schools across the Rio Grande Valley. Ragsdale goes across the country promoting STEM education on behalf of the Shell corporation.

Between dance battles and hip-hop beats, courtesy of his colleague and “Turntable Wizard” Marty G, Ragsdale performed interactive science experiments and shared the personal story of how a low-income African American student pursued a science education.

“I didn’t want to stay in the situation my family was in, so I had to use my mind to get out of that situation,” he said. “I went on to college. And when I graduated, I was the only African American out of 38,000 people to get a degree in chemistry.”

At the end of his presentation, a sea of students with raised hands sang his staple tune, “Anybody can be a scientist!”

During Student Leadership Day, students also heard from Daniel Pittaluga, senior manager of production engineering and vehicle planning lead for Mexico projects for Toyota Motor North America who shared his life experiences.

Students also heard from Stephen Ritz, STEM/STEAM executive director of Green Bronx Machine. Ritz spoke at several events during HESTEC Week.

The day ended with students participating in breakout sessions, where they performed hands-on activities and learned more about opportunities in postsecondary education.
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Hundreds of high school girls and their mothers learned about the educational and career opportunities that await them – and about the power of hard work and ambition – during Latina Day.

Sponsored by H-E-B, the girls and their mothers attending heard from community leaders about the importance of setting goals, following their dreams, developing strong networking and communication skills and staying positive.

“We want you to see that it is not where you start in life that matters, but where you end up and the journey along the way,” said Veronica Gonzales, UTRGV Vice President for Governmental and Community Relations.

Linda Tovar, senior manager of public affairs for H-E-B border region, shared her life story and offered lessons in life to the mothers and daughters in attendance, among them, keep an open mind to opportunities that come along; do not be afraid to take risks and always strive to do and learn more. She urged mothers to be patient with their ambitious daughters, because that ambition will allow them to succeed in life.

Karen Torres, an 18-year-old senior at Mercedes High School, and her mother, Maribel Torres, said they enjoyed the speakers and the uplifting messages.

“They were very motivational,” Karen Torres said.

UTRGV is especially grateful to H-E-B for sponsoring Latina Day.

Thank you to Shell, Toyota, UTRGV Mathematics and Science Academy, U.S. Navy, IBM and all our donors for their generous support in making HESTEC 2017 a success.
Hundreds of middle school and high school students from across the Rio Grande Valley gathered in Brownsville at the Jacob Brown Auditorium for HESTEC Robotics Day. The students built Lego robots, which they used to compete in a series of challenges, including a search and rescue maze, a race and an obstacle course.

South Middle School (Team Two) of Edinburg received first place overall for their robot. Their coach, Timothy Do, praised his students for their hard work. “We’ve been practicing every day for the past month,” Do said. “They put in the commitment and dedication, they deserve it.”

Emiliano Martinez, an 8th grader from South Middle School, was excited to be a part of this winning team. “Our group was the underdog,” said Martinez. “To win this, it just feels amazing.”

Milton Hernandez, UTRGV program coordinator for the Division of Governmental and Community Relations, said having events like this are important for the youth community. “These competitions cater to them and teach them how to problem-solve” Hernandez said. “In life, we all have to learn how to make changes and adapt to situations, and that’s what we’re trying to push with these kids.”

“In life, we all have to learn how to make changes and adapt to situations, and that’s what we’re trying to push with these kids.”

– Milton Hernandez
UTRGV Program Coordinator

UTRGV is especially grateful to AEP, H-E-B, Whataburger, GE Aviation and United Launch Alliance for their support of Robotics Day. Thank you also to Toyota, UTRGV Mathematics and Science Academy, U.S. Navy, Shell, IBM and all our donors for their generous support in making HESTEC 2017 a success.

South Middle School at Edinburg CISD earned first-place at the UTRGV Robotics Day Competition.
The U.S. Navy, sponsor of the Sea Perch Challenge, continued its decade-long partnership with HESTEC as a STEM motivator. 35 teams competed in this regional competition, which drew schools from across the Rio Grande Valley at the Harlingen CISD Aquatic Center.

For the competition, students assemble their Remotely Operated Vehicle, or ROV, and compete in overcoming underwater obstacles. The final portion of the challenge was an interview process in which the students are graded on their professional and knowledge of STEM concepts.

“We are excited to introduce and bring the Navy experience to some of the best and brightest in the South Texas area,” says Captain David W. Bouve, National Director of Navy Marketing and Advertising at Navy Recruiting Command. “To reach a high-caliber pool of recruiting prospects, we need diversity initiatives across the country.”

After a day of competition, Harlingen High School triumphed for the second year in a row. Second place team went to Los Fresnos High School and third place to the Science Academy of South Texas in Mercedes.

Michael Tenison, coach for the Harlingen High team, said that despite a late start on this challenge, the students worked hard for their victory.

“It feels pretty awesome to have won,” Ryan Arnold, club president. “I wasn’t sure if we were going to get a good score or not, and I was kind of stressed out, but I am excited to go to internationals again, I really want us to do well.”

During the lunch break, students heard from Manny Vela, Chief Executive Officer and President at Valley Baptist Health System Inc.

“I am incredibly proud of your participation in this challenge. The fact that you are here is a sign that you already have a good idea that education is going to play an incredibly important role in your lives,” said Vela

Harlingen High now will compete at the international SeaPerch Competition in May 2018. Last year, the team placed in the top 20 of 65 teams.

UTRGV is especially grateful to the U.S. Navy for sponsoring Sea Perch Challenge.

Thank you to Shell, Toyota, UTRGV Mathematics and Science Academy and IBM and all our donors for their generous support in making HESTEC 2017 a success.
Throughout HESTEC week, more than 3,500 students and teachers took part in over 35 breakout sessions.

Teachers learned valuable resources they can use in their classrooms to motivate students to become interested in science, technology, engineering and mathematics (STEM).

At sessions, students were introduced to TechPrep.fb.com by Facebook, a free online resource designed to provide an introduction to what programming is, the opportunities learning to program unlocks, and resources to help students get started.

During Student Leadership Day and Latina Day, students heard from federal and corporate partners on various topics ranging from leadership, career development to personal stories, as well as, engaged in hands-on activities.
Hispanic Engineering, Science and Technology 2016 program at UTRGV, was a special year as it celebrated its 15th year and inaugurated a scholarship program. “What better way to mark that historic milestone – our quinceañera – than by creating a scholarship program to help students as they pursue their dream to change the world through STEM,” said Veronica Gonzales, UTRGV vice president for Governmental and Community Relations. “We want to thank Wells Fargo for their generous support of the scholarship program. They have been a wonderful partner for many years and we are grateful for their support.”

To qualify for the scholarship program, called HESTEC Scholars of STEM, students selected must be recent graduates of a GEAR UP program and must have committed to a STEM field of study at UTRGV. Awardees receive a one-time scholarship.

“Receiving this scholarship showed me that hard work pays off. I know that I will have to continue to work hard in order to live my dreams, and I will always remember that this scholarship given to me by HESTEC helped me and motivated me in taking my first steps to success,” said Ashley Olivarez, a junior at UTRGV who hopes to become a doctor.

Yolanda Gonzalez, district manager for Wells Fargo for the upper Rio Grande Valley and Laredo, said the scholarship program ties in with the bank’s vision of supporting the communities, and in particular, education. “We understand that HESTEC will inspire students in careers in the STEM fields,” she said. “The scholarship program will allow students to pursue their dreams of coming to college and endeavor in the STEM fields.”

The first students to be selected for the HESTEC Scholars of STEM scholarship are:
- Katelyn Aguilar, Edinburg
- Joel Flores, Roma
- Sonia Garza, Brownsville
- Cecilia Gonzalez, Rio Grande City
- Arianna Guerra, Rio Grande City
- Ashley Olivarez, Pharr
- Mario Saenz, Roma
- Yazmin Salinas, Hidalgo

The students were recognized at Student Leadership Day and Latina Day.
HESTEC Week included a Fall Career Expo at the UTRGV Brownsville and Edinburg campuses.

The Career Expo featured 87 exhibitors interviewing UTRGV students and alumni for internship and employment opportunities.

The event drew a range of employers from across Texas and beyond who were looking for excellent candidates to fill positions in their companies - from Toyota and IBM to U.S. Navy and GE Aviation Services.

The Career Expo had a combined attendance of over 1,100 participants. This event engaged employers, students, alumni and community visitors to increase career awareness and to hire the leaders of tomorrow.
Community Day was a perfect end to an amazing week for the thousands of middle and high school students, educators, parents and community members who took part in HESTEC’s 16th anniversary.

Sponsored by H-E-B, Community Day featured live performances with something for everyone. The day started with the award winning UTRGV Mariachi Aztlán. Eddie Saenz, Matt, and The Herdsmen provided country music followed by Retoño with their Tejano sound. The evening ended with Del Castillo, a Latin based band based in Austin, Texas. All the musical performers have strong roots from the Rio Grande Valley.

UTRGV colleges and departments also opened up their doors to showcase the best that the colleges have to offer. There were interactive educational exhibits with hands-on, STEM-related activities, from space science to engineering. The U.S. Navy’s Nimitz provided a virtual reality experience.

Visitors had the opportunity to visit the “Maya: Hidden Worlds Revealed” exhibit, watch a performance of “Peter and the Wolf” and take part in a musical petting zoo.

UTRGV is grateful to H-E-B for sponsoring Community Day.

Thank you to Shell, Toyota, UTRGV Mathematics and Science Academy, U.S. Navy, and IBM for their generous support in making HESTEC 2017 a success.
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February 17, 2018

Festiba
February 26 - March 3, 2018

CHARREADA AT UTRGV & TSC
February 22, 2018

GreenpowerUSA
April 6-7, 2018
THANK YOU
To all the students, educators, parents and partners who made HESTEC 2017 a success.

Hope to see you next year.

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