



### **SciTech Now**

30 minute weekly program

Thursdays at 7:30pm on KLRN

Chris Duel hosts this weekly newsmagazine program. The show covers everything from the IT industry to biomedical enterprises, bringing attention to the science, technology, engineering and mathematics (STEM) advancements in South Central Texas and around the country.

Program number: 243

Program length: 26:46

First air date/time: January 4, 2018 7:30pm

Program description: Tuberculosis is a danger locally and globally, but at The Texas Biomedical Research Institute, we learn how the new Tuberculosis research team is working to find a vaccine and perhaps a cure for the world's deadliest infectious disease.

Participants and their affiliations, titles: Chris Duel, Host | Larry Schlesinger, M.D President / CEO, Texas Biomedical Research Institute | Joanne Turner, Ph.D. Vice President for Research, Texas Biomedical Research Institute | Jordi Torrelles, Ph.D. Scientist, Texas Biomedical Research Institute

Program number: 244

Program length: 26:46

First air date/time: January 11, 2018 7:30pm

Program description: Sea Horses are a tiny creature of the sea, but they offer an amazing insight into reproduction, because it's the males who get pregnant and give birth! Scientists are learning how and why this happens, and how it may unlock questions about genetics.

Participants and their affiliations, titles: Chris Duel, Host

Program number: 245

Program length: 26:46

First air date/time: January 18, 2018 7:30pm

Program description: San Antonio's CPS Energy is providing \$1.5 million in funding for researchers at UTSA who are working on new technologies to improve power generation; including funding to improve their Sky-Imager technology. The device uses a low-cost computer and camera to determine cloud coverage in the sky above solar farms in order to predict when cloud cover will reduce power generation,

allowing utilities to better prepare for what can be rapid decreases and subsequent increases in power production when the clouds pass, or ramp events.

Participants and their affiliations, titles: Chris Duel, Host | Dr. Walter Richardson Jr. Professor of Mathematics, UTSA | Jonathan Esquivel Senior, Mathematics & Computer Science, UTSA | Ariana Moncada Junior, Mathematics & Statistics, UTSA

Program number: 246

Program length: 26:46

First air date/time: January 25, 2018 7:30pm

Program description: Southwest Research Institute offers a state-of-the-art Ocean Simulation Lab and Marine Structures & Engineering group that designs and tests offshore technology equipment. Their work in this field includes research and testing on the ALVIN submarine, the oldest submersible research vessel used for deep ocean research. This work included testing of the vessel in the 1960s, as well as design and maintenance of a titanium personnel sphere for ALVIN upgrades in recent years. Some of the other services include deep ocean simulation, structural analysis, pressure testing, pipeline integrity, and structural systems.

Participants and their affiliations, titles: Chris Duel, Host | Al Steiner, Test & Operations Coordinator Ocean Simulation Lab, SwRI | Joe Crouch, Program Director Marine Structures & Engineering Systems SwRI

Program number: 301

Program length: 26:46

First air date/time: February 1, 2018 7:30pm

Program description: Dr. Dawn Weatherford, assistant professor of psychology, was recently awarded a grant to study the accuracy of detecting fake IDs. She believes the collaborative work could lead to reformed employee training for the Transportation Security Administration (TSA) and the United States Border Patrol. We go inside the lab at Texas A&M University San Antonio, and learn more.

Participants and their affiliations, titles: Chris Duel, Host | Dr. Dawn Weatherford, Assistant Professor of Psychology Texas A&M University San Antonio | Ujjagar Sihan, Senior Texas A&M University San Antonio

Program number: 302

Program length: 26:46

First air date/time: February 8, 2018 7:30pm

Program description: Chris Packham, associate professor of physics and astronomy at UTSA, has collaborated on a new study that expands the scientific community's understanding of black holes in our galaxy and the magnetic fields that surround them. We discuss this, and we speak with a recent graduate who was able to observe a black hole using a unique airborne telescope called "SOFIA".

Participants and their affiliations, titles: Chris Duel, Host | Chris Packham, Associate Professor University of Texas at San Antonio | Lindsay Fuller, Post-Doctoral Researcher University of Texas at San Antonio

Program number: 303  
Program length: 26:46  
First air date/time: February 15, 2018 7:30pm

Program description: While research into climate change may prove vital to mankind's future, the fundamental component to this research is data; where does this data come from? How is it collected? How reliable is it? And how is it analyzed? We go to the University of the Incarnate Word, where Dr. Gerald Mulvey shows us multiple sources of data used to survey the climate of the past and present, for a better understanding of the future.

Participants and their affiliations, titles: Chris Duel, Host | Dr. Gerald Mulvey, Assistant Professor of Meteorology University of the Incarnate Word

Program number: 304  
Program length: 26:46  
First air date/time: February 22, 2018 7:30pm

Program description: IN SAN ANTONIO, CLIMATE CHANGE HAS MADE SUMMERS HOTTER AND THUNDERSTORMS STRONGER. CITY AND CULTURAL LEADERS ARE TAKING A PROGRESSIVE STANCE IN ADDRESSING THE ISSUE, DESPITE BEING IN THE MIDDLE OF A STATE WHERE CLIMATE CHANGE CAN BE A DIFFICULT SUBJECT TO BROACH...THIS SEGMENT IS PART OF AN ONGOING PUBLIC MEDIA REPORTING INITIATIVE CALLED PERIL AND PROMISE, TELLING THE HUMAN STORIES AND SOLUTIONS OF CLIMATE CHANGE. CHRIS DUEL EXPLAINS HOW THE CITY IS CRAFTING ITS MESSAGE TO ENGAGE ITS RESIDENTS.

Participants and their affiliations, titles: Chris Duel, Host | Douglas Melnick, Chief Sustainability Officer, San Antonio | Ron Nirenberg, Mayor of San Antonio | Paula Gold Williams, President/ CEO, Energy | Dr. Hazem Rashed-Ali, Lead Investigator, UTSA | Father David Garcia, Administrator of Mission Conception, Dir., UNESCO World Heritage Missions of San Antonio

Program number: 305  
Program length: 26:46  
First air date/time: March 1, 2018 7:30pm

Program description: Southwest Research Institute has developed High Power Impulse Plasma Source technology. Known as (Hi-PIPS), this environmentally friendly technique is used to apply coatings to materials and products to improve surface energy, durability, and other characteristics. We go inside the lab, and learn more.

Participants and their affiliations, titles: Chris Duel, Host | Vicky Poenitzsch, Southwest Research Institute

Program number: 306  
Program length: 26:46  
First air date/time: March 22, 2018 7:30pm

Program description: A new study called, “Plugging In: Readyng America's Cities for the Arrival of Electric Vehicles” will include first-of-its-kind policy analysis of best practices from across the United States and internationally, and will help make San Antonio's transition to electric vehicles as smooth as possible. We take you to the Sinkin Eco Centro at San Antonio College, to learn more.

Participants and their affiliations, titles: Chris Duel, Host | Luke Metzger, Executive Director, Environment Texas | Ana Sandoval, San Antonio City Council District 7 | Lily Lowder, Natural Resources Outreach Specialist, Alamo Area Council of Governments | Tom "Smitty" Smith, Texas Electric Transportation Resources Alliance

Participants and their affiliations, titles: Chris Duel, Host

Program number: 307

Program length: 26:46

First air date/time: March 29, 2018 7:30pm

Program description: Instead of traditional aerial photography services, Bartlett Cocke General Contractors (a San Antonio-based construction firm), is using an internal drone program for aerial photography, videography, progress monitoring, and inspections for jobs sites across the Texas.

Participants and their affiliations, titles: Chris Duel, Host | Adam Hockley, Regional Virtual Design & Construction Manager, Bartlett Cocke General Contractors | Luis Berumen, Director of Construction Technologies, Bartlett Cocke General Contractors | Pedro Ibanez, BIM Coordinator, Bartlett Cocke General Contractors