



### **SciTech Now**

30 minute weekly program

Fridays at 8:30pm 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: 234

Program length: 26:46

First air date/time: October 5, 2017 7:30pm

A geoscience team from Southwest Research Institute recently completed a study on the long-term effects of groundwater pumping near Devils River, one of the state's last pristine rivers. They found that the river relies heavily on natural springs from the Trinity-Edwards Aquifer in Southwest Texas. The headwaters moved 10 miles downstream since the 1960s.

Participants and their affiliations, titles:

Chris Duel, Host SciTech Now

Program number: 235

Program length: 26:46

First air date/time: October 12, 2017 7:30pm

Learn about a new headset that is known as a brain-wearable device. This device reads brain waves in real time and enables the user to improve creativity, reduce stress and increase focus, thus enhancing performance. It could be the next big leap in digital technology, with applications for gaming, the disabled, the military and even detecting degenerative brain disorders.

Participants and their affiliations, titles:

Chris Duel, Host SciTech Now | Erica Warp, PhD Vice President of Product Emotiv

Program number: 236

Program length: 26:46

First air date/time: October 19, 2017 7:30pm

Program description: A dangerous result of the massive flooding was the record 800-plus toxic spills from wastewater treatment plants, along with contaminants from damaged oil refineries and chemical plants flowing into the flood waters. At the University of Texas at San Antonio, Vikram Kapoor, an

assistant professor of Civil and Environmental Engineering has received a Rapid Response Research grant from the National Science Foundation to study microbial contaminants in Texas waterways that were affected by Hurricane Harvey.

Participants and their affiliations, titles: Chris Duel, Host | Vikram Kapoor, Assistant Professor of Civil and Environmental Engineering, UTSA

Program number: 237

Program length: 26:46

First air date/time: October 26, 2017 7:30pm

Wrong way driving is a deadly danger on our roads. In the state of Texas, approximately 240 wrong-way driving events are reported each year, often with catastrophic consequences. A three-way collaboration between the Texas Department of Transportation, Southwest Research Institute and the Texas A&M Transportation Institute is developing technologies to better warn drivers.

Participants and their affiliations, titles: Chris Duel, Host | John Gianotti, Transportation Engineer, Texas Department of Transportation and Environmental Engineering | Melisa Finley, Research Engineer, Texas A&M Transportation Institute | Cameron Mott, Senior Research Analyst, Southwest Research Institute

Program number: 238

Program length: 26:46

First air date/time: November 9, 2017 7:30pm

Program description: An innovative program at the UT Health School of Nursing enables caregivers to experience how it feels to have dementia. The program is called the Virtual Dementia Tour.

Participants and their affiliations, titles: Chris Duel, Host | Carole White, Ph.D., RN Nursing Professor, UT Health, San Antonio | Debbie James, Clinical Assistant Professor, School of Nursing, UT Health, San Antonio | Precious Osuoha, Ph.D. Occupational Therapist Registered

Program number: 239

Program length: 26:46

First air date/time: November 30, 2017 7:30pm

Program description: Almost everything we do in life involves some level of mathematics. An exciting and fun new exhibit at the Witte Museum gives children and adults an opportunity for hands-on learning to see how math affects our daily activities. The exhibit features interactive video games, mountain bikes, animated movies and more.

Participants and their affiliations, titles: Chris Duel, Host | Sarah Rowley, STEM Education Manager, Witte Museum | Katy Brought, Director of Communications, Witte Museum

Program number: 240

Program length: 26:46

First air date/time: December 14, 2017, 2016 7:30pm

Program description: At the University of Texas at San Antonio, students are taking a new approach to their final projects in Professor John Quarles' video game development class this semester. He's partnered with local non-profit Gamerz 4 Vets, which aims to rehabilitate injured veterans through gaming, and asked his students to create a video game specifically tailored to a disabled veteran.

Participants and their affiliations, titles: Chris Duel, Host | John Quarles, Associate Professor of Computer Science, University of Texas at San Antonio | Trase Westbrook, Junior, University of Texas at San Antonio | Andrew Sanetra, Senior, University of Texas at San Antonio | Edward Mondragon, Senior, University of Texas at San Antonio | Clifford Hill, Senior, University of Texas at San Antonio

Program number: 241

Program length: 26:46

First air date/time: December 21, 2017 7:30pm

Program description: Since we aired SciTech Now, we've taken you to the University of Texas at San Antonio, to highlight the many exciting breakthroughs, research efforts, and awesome hands on experiences that comes with studying the different elements of science. First up, we look back at one anatomy class with Pre-Med students working with SynDavers, giving them a version of surgical experience that is very realistic before they go on to work with actual humans. From anatomy, to engineering, we revisit with Professor Wassim Ghannoum who has received nearly \$800,000 from the National Institute of Standards and Technology to develop computer simulation models that will shed light on how severe earthquakes affect reinforced concrete structures. And finally, we look back at the local start-up, NovoThelium, and talk with one UTSA graduate student, who discusses the research on how to use bioengineered scaffolds to allow women to regenerate nipples after a mastectomy.

Participants and their affiliations, titles: Chris Duel, Host

Program number: 242

Program length: 26:46

First air date/time: December 28, 2017 7:30pm

Program description: We've seen research at the college level that aims to help a certain group, but what about at the high school level?

For our first recap, we introduce you to one 10th grader at The School of Science and Technology, who has applied his studies to make a difference in a young boy's life. From the classroom, to the test track, our second recap involves a collaboration between the Texas Department of Transportation, Southwest Research Institute and the Texas A&M Transportation Institute, on developing technologies to better warn wrong-way drivers. And finally, an innovative program at the UT Health School of Nursing enables caregivers to experience how it feels to have dementia.

Participants and their affiliations, titles: Chris Duel, Host