

## **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: 413 Program length: 26:46

First air date/time: April 4, 2019 7:30pm

Here on SciTech Now, we bring you the latest in breakthrough technology and science, but tonight's story focuses on a collective of knowledge being leveraged to create a rocket capable of soaring 100-thousand feet into the air.

This technology challenge is being met by teams of high school students in the Alamo Heights high school aeronautical engineering class. Not only are they building the rocket, but they will soon head to a top-secret base to fire the rocket....doing the work of professional engineers, yet they are only teenagers.

Participants and their affiliations, titles: Chris Duel, Host | KATE JAECKLE, MANAGER, INJECTION COMPONENTS, ALAMO HEIGHTS HS ROCKETRY CLASS | PHILIP MISIEWICZ, SENIOR STUDENT | COLIN LANG, ROCKETRY TEACHER ALAMO HEIGHTS HS | JOSHUA GOFORTH ROCKETRY STUDENT

Program number: 414 Program length: 26:46

First air date/time: April 11, 2019 7:30pm

Here on SciTech Now, we bring you the latest in breakthrough technology and science, but tonight's story focuses on a group of St. Mary's University students who invented a 3D add-on piano bar, so that you can play songs on the piano by following the flashing lights. The attachment converts any piano into an instrument that can be played by looking at various colored lights which indicate the chords. The actual sheet music is also digitally displayed. This product makes it very easy for anyone to play the piano, without even a music teacher coaching them at the side.

Participants and their affiliations, titles: Chris Duel, Host | Vernon Wier, Engineering Lab Technician, St. Mary's University; Zachary Bosker, Senior & Engineering Student, St. Mary's University; Eduardo Davalos, Senior & Engineering Student, St. Mary's University; Ashkan Aminian, Senior and Engineering Student, St. Mary's University.

Program number: 415 Program length: 26:46

First air date/time: April 18, 209 7:30pm

Is artificial intelligence the answer to better predicting how well cancer patients will do after chemo? That's what the Southwest Research Institute and UT Health San Antonio are looking at, after winning an international challenge for the AI algorithm. They are transferring deep learning from AI that controls driverless cars, right into the health arena. Only this time, they are working towards that same AI technology driving a more exact cancer prognosis.

Participants and their affiliations, titles: Chris Duel, Host | Hikiam Ibraoudene, SWRI Group Leader; David Chambers, SWRI Engineer; Dr. Edward Medina, UT Health San Antonio Pathologist and Professor.

Program number: 416 Program length: 26:46

First air date/time: April 25, 2019 7:30pm

Three St. Mary's University engineering students took a traditional product and turned it upside down, creating a whole new use for flying drones. By placing a camera on the top of a drone, rather than on the bottom, the students are taking this invention to the next step. A camera that looks up will be able to survey the underside of bridges and other architecture, saving time and money. It's a new spin on an old concept on SciTech Now.

Participants and their affiliations, titles: Chris Duel, Host | Andres Cuellar, Computer Engineering Student, St. Mary's University; Preston Allen, Computer Engineering Student, St. Mary's University; Nacer Ibaroudne, Electrical Engineering Student, St. Mary's University

Program number: 417 Program length: 26:46

First air date/time: May 9, 2019 7:30pm

Ever since 'Deflategate,' with the New England Patriots, new attention has been focused on the pressure of balls used in professional and even amateur sports. Now, a former Spur and two partners have created a device called, Innoflate, which guarantees the exact right pressure is in the ball, whether it's basketball, football, soccer, or any other sport. Join us as we talk to these savvy inventors who took a problem, designed a technological solution, and are taking it to market.

Participants and their affiliations, titles: Chris Duel, Host | Grahm Roach, CEO Innoflate; Sam Laine

Program number: 418 Program length: 26:46

First air date/time: May 16, 2019 7:30pm

When disaster strikes, people are routinely left without power. Previously, diesel generators were the only solution, but now, a group of St. Mary's seniors have come up with a novel solution that not only provides power, but harnesses the sun to do it. Environmentally friendly; easy to use and quick access to electricity—this solar array vehicle promises to minimize environmental impact, while helping those in dire need of resources.

Participants and their affiliations, titles: Chris Duel, Host | Cristian Buelna, St. Mary's Mechanical Engineering Student//Gabriela Lopez, St. Mary's Electrical Engineering Student//Rodrigo Aviles, St. Mary's Environmental Engineering Student

Program number: 419 Program length: 26:46

First air date/time: May 23, 2019 7:30pm

Please note, the original airdate for the local segment was January 24th, 2019

Program number: 403

Program description: IT'S CALLED ULTRA ACCESSIBLE TECHNOLOGY AND THANKS TO A PARTNERSHIP BETWEEN MORGAN'S WONDERLAND AND MICROSOFT, SPECIAL NEEDS CHILDREN HAVE A CHANCE TO INTERACT WITH VIDEO AND EDUCATIONAL GAMES WITH ADAPTIVE CONTROLS, WHICH ACCOMMODATE THEIR DISABILITIES.

Participants and their affiliations, titles: Chris Duel, Host | RON MORANDER, COO Morgan's Wonderland

Credits:

Producer: Donna Parker Videographer: Sergio Gonzales

Editor: J. A. Saenz

Program number: 420 Program length: 26:46

First air date/time: May 30, 2019 7:30pm

Please note, the original airdate for the local segment was April 4<sup>th</sup>, 2019

Program number: 413

Program description:

On tonight's episode, BUILDING A ROCKET FROM SCRATCH, SELF HEALING ELECTRONICS, UNDERSTANDING NATURE THROUGH BIRD CAMS, AND, STEM TEACHING THROUGH NATURE.

Participants and their affiliations, titles: Chris Duel, Host | KATE JAECKLE, MANAGER, INJECTION COMPONENTS, ALAMO HEIGHTS HS ROCKETRY CLASS | PHILIP MISIEWICZ, SENIOR STUDENT | COLIN LANG, ROCKETRY TEACHER ALAMO HEIGHTS HS | JOSHUA GOFORTH

## **ROCKETRY STUDENT**

Program number: 421 Program length: 26:46

First air date/time: June 20, 2019 7:30pm

One of the toughest things about a cancer diagnosis is worrying that chemo or radiation doesn't get rid of it all and it might come back. SciTech takes you to Southwest Research to talk to scientists who have partnered with UT Health San Antonio researchers, to see if artificial intelligence might be just the fix that they need. They are transferring deep learning from AI that controls driverless cars, right into the health arena. Only this time, they are working towards that same AI technology driving a more exact cancer prognosis.

Participants and their affiliations, titles: Chris Duel, Host | Hikiam Ibraoudene, SWRI Group Leader; David Chambers, SWRI Engineer; Dr. Edward Medina, UT Health San Antonio Pathologist and Professor.

Program number: 422 Program length: 26:46

First air date/time: June 27, 2019 7:30pm

WE VISIT TWO SMART BOTTLE FOUNDERS THAT HOPE THEIR INVENTION WILL ASSIST IN THREE MAIN AREAS: THE OPIOD CRISIS; THE ELDERLY ON MEDICATION AND CLINICAL TRIALS WITHIN THE MEDICAL ARENA. IT'S A SMART PILL BOTTLE THAT REGULATES HOW OFTEN A PERSON'S MEDICATION IS DISPENSED AND IT'S CALL PATCH—THE CONCEPT IS REMARKABLE, BUT EVEN MORE SO WHEN YOU CONSIDER THAT TWO YOUNG COLLEGE STUDENTS ARE THE BRAINPOWER BEHIND PATCH.

Participants and their affiliations, titles: Chris Duel, Host | GAVIN BUCHANAN, CO-FOUNDER, PATCH | ANDREW AERTKER, CO-FOUNDER, PATCH | NATHAN DULLEA, CTO, TRINITY PATCH | LUIZ MARTINEZ, Ph.D, DIRECTOR OF INNOVATION AND ENTREPRENEURSHIP, TRINITY UNIVERSITY

Please note the original airdate was February 21st, 2019, Episode 407.