



# IEEE Central Texas Newsletter



## IEEEDAY 2018

IEEE Day's theme is: "Leveraging Technology for a Better Tomorrow". While the world benefits from what's new, IEEE focuses on what's next. IEEE Day 2018 is the 9th edition of the same and will be celebrated on 2nd October 2018.

Worldwide celebrations demonstrate the ways thousands of IEEE members in local communities join together to collaborate on ideas that leverage technology for a better tomorrow. We celebrate IEEE members!

<http://www.ieeeday.org/>

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### Message from the Chairman

Fawzi Behmann

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## 06 IEEE Membership Development

### RENEW YOUR IEEE MEMBERS TODAY

Renew your IEEE Membership TODAY to continue developing your career, accessing essential networking opportunities, and receiving other exclusive IEEE benefits. Renew early and you will be entered to win prizes. [www.ieee.org/renew](http://www.ieee.org/renew)

### NOT AN IEEE MEMBER

Join IEEE today and get 15 months of membership for the price of 12. That's right sign up today and renewals will be deferred till 2018. Checkout the updated benefits of being an IEEE member at [www.ieee.org/membership](http://www.ieee.org/membership)

## 07 IEEE IEEE CTS EVENTS

Come and see our section events.

# Message from CTS Chairman



Chairman, IEEE Central Texas Section

Fawzi Behmann

[f.behmann@ieee.org](mailto:f.behmann@ieee.org)

The month of October has a significance for IEEE and Central Texas Section (CTS).

## A. IEEE Day

IEEE Day is officially celebrated on the first Tuesday of October, which is October 2nd this year. Celebrations are planned for the first two weeks of October, from October 1-14, 2018.

Worldwide celebrations demonstrate the ways thousands of IEEE members in local communities join together to collaborate on ideas that leverage technology for a better tomorrow. We celebrate IEEE members!

### Special CTS IEEE DAY CELEBRATIONS:

#### Monday, October 1, 11:30 – 1:00 PM

- Southwest Research Institute, San Antonio
- Topic: Automated Driving
- Speaker: Ryan Lamm, Director of R&D at Southwest Research Institute
- Sponsor: Women in Engineering – San Antonio
- For more information: Contact Sunny at [e.shahhaidar@gmail.com](mailto:e.shahhaidar@gmail.com)

#### Tuesday, October 2, 8:00 am – 4:00 PM

- InnoTech – Austin's Premiere Technology Innovation Conference & Expo
- Austin Convention Center
- IEEE Invites You to Come Celebrate with us
- Discounted InnoTech Registration code - Use Discount Code IEEE8C for complimentary registration for general InnoTech or 20% discount on all special events
- Visit [www.innotechaustin.com](http://www.innotechaustin.com)
- VISIT IEEE-CTS BOOTH#116
- Special promotion – Come and celebrate with us.
- For more information, contact Fawzi Behmann [f.behmann@ieee.org](mailto:f.behmann@ieee.org)

#### Tuesday, October 2, 6:00 – 8:00 PM

- AT&T Labs, Austin
- Topics: Intro to Graph Convolutional Networks
- Speaker: Graham Ganssle, Head of Data Science, Expero
- Sponsors: Joint Communications and Signal Processing (COMSOC/SP) – Austin, Engineering, Medicine, and Biology Society & Computer Society – Austin, Life Members- Austin and Consulting Network
- Come and celebrate and enjoy a piece of IEEE DAY cake with us!
- For more information, contact Fawzi Behmann [f.behmann@ieee.org](mailto:f.behmann@ieee.org)

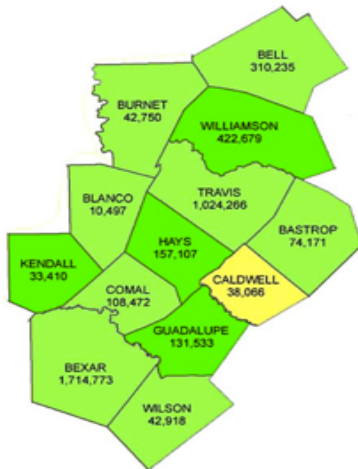
#### Monday, October 15, 6:30 to 8:00 PM

- Cirrus Logic
- Program: Leadership Lessons from Austin Shakespeare and Tennessee Williams
- Sponsors: IEEE Young Professionals – Austin, & Women in Engineering
- For more information, contact: Leslie Martinich at [lmartinich@ieee.org](mailto:lmartinich@ieee.org)

## B. Central Texas Section (CTS) Specifics

### CTS Boundaries - Counties

The following counties are what we consider the boundaries of Central Texas: Travis, Williamson, Hays, Burnet, Bell, Bastrop, Guadalupe, Comal, Kendall, Blanco and Wilson.



Most CTS chapters are currently located in Austin and San Antonio, but there is room for growth.

The City of Austin is in Travis County and surrounded by Williamson, Bastrop, Hays, and Caldwell counties. The Austin metro region has experienced explosive growth. Counties throughout the metro region have vibrant economies with strategic plans for schools, neighborhoods, and commercial developments that meet the needs of over two million residents.

Bexar county would include the cities of San Antonio and New Braunfels. Caldwell county borders include Luling to the South, San Marcos on the west, Delhi on the east, and Maha on the north.

Source: <https://www.realtyaustin.com/counties.php>

### CTS Logo

It is important to have a logo for Central Texas that reflects the name "CTS", affiliation with "IEEE", and geographical positioning. The simplest way to associate the Central Texas counties is the state, lone star and state capital. A similar logo (background image) was used for IEEE Globecom 2014 held in Austin in all promotional material.

Thus, we are happy to introduce the CTS Logo with October newsletter.



## Communications Portal

- For CTS, we are celebrating the history of the Analog newsletter moving into a new phase starting this month to become part of Central Texas Communications portal, an umbrella of communications platform connected CTS with our members and community.
- The first purpose of the communication portal is a user friendly newsletter that is rich with relevant and timely information such as meetings and events, scalable and integrated into the communications portal platform.
- The second purpose is to make the website responsive to query by having qualified staff to respond quickly and responsibly to questions.
- The third purpose includes initial enhancements such as; adding sections/features for jobs, volunteers, blogging, news that affect CTS, etc.

## Austin Health Forum 2018 “Blockchain-Based Healthcare Initiatives”, October 25

IEEE is happy to organize a special event on October 25 to address various initiatives leveraging blockchain technology in addressing a few use-cases in healthcare. This event is part of continuing efforts for IEEE CTS, collaborating with local associations and consortiums on a number of local initiatives with Dell Medical, City of Austin, and ACUP. A panel of experts on healthcare/blockchain will introduce a set of diverse applications using blockchain technologies and highlighting some of the key benefits to healthcare.

PLEASE MARK YOUR CALENDAR FOR OCTOBER 25, 6-8PM. The location is being finalized and will be announced shortly.

## Student Branches Activities

- Texas State – Senior Design IoT Projects – The CTS Chair has taken additional steps to establish collaboration with branch students at Texas State towards starting two IoT based projects and use cases that would be aimed at serving the community. The two projects were facilitated by two local professors and the program will offer credits for meeting the requirement of the program.
- UT Austin ECE and Mechanical – The CTS Chair was invited to the new campus in September and addressed the general assembly of IEEE students, inspiring them to leverage IEEE resources and be engaged with community outreach. Earlier, the CTS chair had talks with student leaders to identify some key areas for building collaboration between CTs and Student Branches.

## Central Texas Discover Engineering

As a part of outreach and serving the community - in particular young students - IEEE CTS has served students in organizing visits to cultural sites. IEEE CTS recently became part of the Discover Engineering steering committee, and a second board meeting was recently held to explore out of the box options that bring value to the student community. The next meeting will align a select set of activities with a defined set of goals and objectives.

- We are in election season. Please take note of the election process planned by CTS.
- Other planned and interesting meetings offered in October/November will be listed later on. Please take advantage and sign up for these sessions.
- Your feedback and suggestions are welcome.
- We would like to hear from you.
- Suggest an idea or two as to how we can serve you better
- An event that you like to see serving the community

Just drop us a line and send to [f.behmann@ieee.org](mailto:f.behmann@ieee.org).





IEEE Day was celebrated for the first time in history when engineers and IEEE members worldwide gathered to share their technical ideas in 1884.

In the spring of 1884, a small group of individuals in the electrical professions met in New York, USA. They formed a new organization to support professionals in their nascent field and to aid them in their efforts to apply innovation for the betterment of humanity—the American Institute of Electrical Engineers, or AIEE for short. That October, the AIEE held its first technical meeting in Philadelphia, PA, USA. Many early leaders, such as founding President Norvin Green of Western Union, came from telegraphy.

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### **DID YOU KNOW ABOUT IEEE – STAYING CURRENT IN TECHNOLOGY**

#### **Did You Know -**

You can find out what are the most accessed documents in IEEE Xplore for the month. By selecting the Publications Tab, and scrolling down to the IEEE Xplorer Digital Library you will see the Top 100 Downloaded documents hot link. Here you will find a list of the most popular documents accessed this month. Citations and their Abstract are available with quick links to the full article. IEEE Xplore has over two million documents on emerging and revolutionary technologies. Check it out thought your IEEE account or go directly at

<https://ieeexplore.ieee.org/xpl/browsePopular.jsp>

### **IEEE MEMBER DISCOUNTS – HAVE YOU SEE WHAT'S AVAILABLE NOW?**

IEEE members can access more savings in more places for home and office including group discounts on insurance, travel, home/office and technology needs. While you focus on your career, we'll take care of saving you money. See vendor details for terms, conditions and availability. Visit the Member Discounts page at [www.ieee.org/discounts](http://www.ieee.org/discounts) to discover this added perk of IEEE Membership.

Joe Redfield  
CTS Membership Development Chair  
[J.Redfield@ieee.org](mailto:J.Redfield@ieee.org)  
210-744-2968

# IEEE CTS OCTOBER EVENTS

## 01 Special Event! IEEE Day Celebration

**Time:** 11:30 am - 1:00 pm -- **MORE INFO AND REGISTRATION:** <https://events.vtools.ieee.org/m/176826>

Join us for great food and drinks, good company and a fantastic discussion, focused on developing your career. No charge for this event! Bring a friend! And make new ones! Co-sponsored by: SwRI

**Speaker:**

Mr. Ryan Lamm,  
Director of R&D at Southwest Research Institute,

**Agenda:**

11:30am Lunch and networking  
12:00pm Talk and Panel discussion  
1:00pm Adjourn

**Location:**

Bldg: Cafeteria  
Southwest Research Institute  
6220 Culebra Road  
San Antonio, Texas  
78238

## 02 SPECIAL EVENT! CTS IEEE DAY CELEBRATION – Austin, Topic: “Intro to Graph Convolutional Networks”

**Time:** 6 pm - 8:00 pm -- **MORE INFO AND REGISTRATION:** <http://events.vtools.ieee.org/m/176882>

Special IEEE Day Event brought to you by IEEE Computer & EMBS, Communications & Signal Processing Societies, Life Members – Austin and Consulting Networks

**Presenter:**

Graham Ganssle, Ph.D., P.G.  
Head of Data Science, Expero

*Abstract:*

Is this group of delis a money laundering ring, or are they simply exchanging provolone? Why does Devin have so many Facebook friends, and I only have a handful? The answer to one of these questions is obvious (because I'm a nerd giving an ML presentation), but both can be solved with graph convolutional networks. GCNs use a novel neural network kernelization which generalizes the accuracy and speed of CNNs to non-Euclidean information spaces. Join me for a chat about the applications of GCNs, the elegance of convolutional mathematics, and what the hell non-Euclidean means. I'll even send you home with the party favor of GCN open source software.

**Agenda:**

6:00 – 6:20 PM Open networking meet and greet  
6:20 – 6:30 PM IEEE Austin ComSoc/SP and EMBS/CS Chapters  
6:30 – 7:30 PM Feature presentation / workshop  
7:30 – 8:00 PM Q/A, Networking  
8:00 pm Adjourn

**Location:**

Room: #220  
Bldg: AT&T Labs  
9505 Arboretum  
Austin, Texas  
78729

**02** 2018 IEEE DAY SOCIAL - CTS AUSTIN

**Time:** 6:30 pm - 9:30 pm -- **MORE INFO AND REGISTRATION:** <https://events.vtools.ieee.org/m/177983>

The CTS TEMS Graduate Student Chapter, in association with CTS Young Professionals - Austin, invites you to the annual IEEE Day Social on Tuesday, October 2nd. We'll meet at the la Madeleine French Bakery & Cafe (Sunset Valley) from 6:30 to 9:30 pm - see event details below.

Appetizers and dinner will be provided. Please come and meet your local IEEE friends - this will be another great opportunity for you to network and learn about how IEEE can help YOU take your career to the next level!

Please register so we can get a head count.

**Location:**

The la Madeleine French Bakery & Cafe  
5493 Brodie Ln  
Sunset Valley, Texas  
United States 78745

**12** IEEE PHO Seminar: From Nanoscale Emitters to Photonic Integrated Circuits

**Time:** 2:00 pm - 3:30 pm -- **MORE INFO AND REGISTRATION:** <https://events.vtools.ieee.org/m/177190>

IEEE Photonics Society Seminar

**Presenter:**

Prof. Qing Gu  
The University of Texas - Dallas

*Abstract:*

A crucial component in high-performance photonic integrated circuits (ICs) and other chip-scale photonic systems is an on-chip light source that is efficient, economical, silicon (Si)-compatible, and electronically addressable. In this talk, I will cover two types of light sources with the potential to be inserted into photonic ICs: III-V nano-antenna and perovskite microlasers. I will further discuss emerging physics and applications that can be enabled by these material systems, including topological states and unidirectional edge-modes for robust data transport, and metamaterials with hyperbolic dispersion for super-resolution imaging.

**Location:**

Room: 2.114  
Bldg: MER  
UT Austin Microelectronics Research Center  
10100 Burnet Road, Bldg. 160  
Austin, Texas  
78758



## 15 Special Event! CTS IEEE Day Celebration and Leadership Lessons from Austin Shakespeare and Tennessee Williams!

**Time:** 6:30 pm - 8:00 pm -- **MORE INFO AND REGISTRATION:** <http://events.vtools.ieee.org/m/176810>

What happens to an organization (or a family) when the leaders avoid dealing with the truth? What happens when inconvenient facts or difficult topics are simply not dealt with, or worse, lied about?

We'll have some rousing and moving scenes from the upcoming production of *Cat on a Hot Tin Roof* and a panel discussion featuring tech leaders as well as experts on Tennessee Williams and the theater. We'll follow this November 17 with the Opening Night production and a champagne reception

Join us for great food and drinks, good company and a fantastic discussion, focused on developing your career. No charge for this event! Bring a friend! And make new ones!

### **Agenda:**

6:30 Snacks, drinks and networking

7:00 Performance of scenes from "Cat on a Hot Tin Roof" and panel discussion

8:00 Adjourn

### **Location:**

Bldg: Just North of the Parking Garage. Park near West & 7th.

Cirrus Logic

800 W. 6th St

Austin, Texas

78701

## 16 IEEE EMB San Antonio- Biosensors

**Time:** 7:00 pm - 8:30 pm -- **MORE INFO AND REGISTRATION:** <http://events.vtools.ieee.org/m/177103>

IEEE Engineering in Medicine & Biology (EMB) and Computer Society chapters of San Antonio are hosting a joint event featuring distinguished EMB lecturer Tom Jobe from Oklahoma focused on the topic of Biosensors.

There is no charge for the event. Bring a friend! And make new ones!

Snacks and refreshments will be provided.

### **Presenter:**

Mr. Tome Jobe

COO & VP of Engineering-SensiQ Technologies,

### **Agenda:**

7:00-7:20pm Snacks and networking

7:20-8:00pm Speaker's Presentation

8:00-8:15pm Q&A, Networking

### **Location:**

Room: University Center Conference Room B

St. Mary's university

1 Camino Santa Maria

San Antonio, Texas

78228

## 23 IEEE PI2 Austin, Tech Meeting “PE Ethics from an attorney’s perspective”

**Time:** 6:45 pm - 8:45 pm -- **MORE INFO AND REGISTRATION:** <http://events.vtools.ieee.org/m/176445>

Co-sponsored by: IEEE PI2 Secretary

**Presenter:**

Brian Carroll

*Abstract:*

Why do ethics matter as an Engineer? Known and unknown risks that can put your license and your career on the line, and how to spot them before they do.

**Agenda:**

6:00 pm - 6:30 pm: Registration, Dinner and :

6:30 pm - 7:00 pm: Social & Business Meeting:

7:00 pm -8:30 pm: Program

**Location:**

Bldg: Cover3

2700 West Anderson Lane

Austin, Texas

78757

## 30 IEEE PI2 Austin, Tour of Voltabox of Texas

**Time:** 6:30 pm - 8:30 pm -- **MORE INFO AND REGISTRATION:** <http://events.vtools.ieee.org/m/176437>

Co-sponsored by: Steve Pearson

Tour of Voltabox of Texas, Inc., 1500 Volta Drive, Leander, TX 78641

**Presenter:**

Thomas Ortman

**Agenda:**

Voltabox is a global manufacturer of advanced battery systems for industrial applications. Headquartered in Delbrück, Germany, with manufacturing operations in Europe, North America and Asia, Voltabox is a world leader in e-mobility.

Voltabox of Texas engineers, designs, develops, manufactures and deploys high-quality, high voltage, lithium-ion battery systems, for customers in the North American market.

Voltabox of Texas will provide an overview of business activities and opportunities.

A company presentation will be followed by a tour of the manufacturing floor.

Our host for the tour will be Thomas Ortman, Chief Technology Officer and interim Chief Executive Officer for Voltabox of Texas, Inc., a subsidiary of Germany-based Voltabox AG, a publicly traded, multi-national corporation serving the E-mobility sector with high energy storage solutions. Thomas was Founder, President & CEO of Concurrent Design, Inc., an engineering product development firm for emerging technologies in semiconductor, electronics, medical and clean technologies, acquired by Voltabox AG March 2018. Design Engineer working in product development, manufacturing & test equipment development at Bell Aerospace & IBM.

Children under 12 years of age are discourage from attending the tour because of the safety requirements on the manufacturing floor.

Pictures will not be allowed in the manufacturing area.

**Location:**

1500 Volta Drive

Leander, Texas

78641