



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 was the 9th edition of the same it was celebrated on 2nd October 2018.

Worldwide celebrations demonstrated the ways thousands of IEEE members in local communities joined together to collaborate on ideas that leverage technology for a better tomorrow.

Let's meet next year at IEEE Day!

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

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Message from the Chairman

Fawzi Behmann

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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

NOT AN IEEE MEMBER

Join the IEEE this month and receive 14 months of the benefits of being an IEEE member for the price of 12. Go to www.ieee.org/join to begin receiving all the benefits of being an IEEE member NOW.

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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

Dear members of IEEE-CTS and interested parties,

Overall, positive contributions were made during the month of October, and we have a healthy plan for November.

October was filled with diverse activities and events. The first half focused on celebrating IEEE DAY where more than four separate activities were conducted by different chapters as highlighted in the October Newsletter.

Additional activities were realized in the later part of October, such as holding a special health forum on blockchain-based initiatives on healthcare. This is part of supporting celebrating October as a Blockchain month in Texas. Seven CEOs and leaders of blockchain took part in a well-attended special program held at Dell Medical. In fact, the biomedical activities for both Austin and San Antonio have picked up speed and three sessions were held in October.

Another event focused on supporting congressional activities that will address policy on fast-emerging technology, a R&D fund, and a STEM program. Members were invited to an October 24th event organized by Austin technology executives for Kopser, a successful Austin technology entrepreneur who is running for US Congress in Texas district 21. Thanks, Mina Hanna for your efforts in government activities for CTS.

I'd like to point your attention to a number of sessions planned for November which are outlined in this newsletter:

- Millimeter-wave MIMO Transceivers for Future Wireless Systems – Nov 8
- Rolled-Ribbon Battery Company Tour - Nov 10
- The Measure of the Universe – Nov 13
- Leadership Lessons from Austin Shakespeare and Tennessee Williams – Nov 17
- Machine Learning and Patient Care – Nov 29

Please take advantage and sign up for November sessions of interest.

IEEE Texas Technical Tour

Planning ahead, an IEEE Texas Technical Tour is being organized by the San Antonio Life Member Affinity Group (LMAG) of the Central Texas Section and Region 5.

The tour, limited to 50 guests, is scheduled for mid-October 2019 and will consist of a 10-day bus tour of significant technical sites in Houston, San Antonio, Austin, Waco, and Dallas. Cultural and historical sites will also be included, along with many social events with local IEEE members.

Preliminary information is available at <http://sites.ieee.org/ieee-tx-technical-tour/>.

We are in the election season. Please take note that the CTS election process is underway.

We welcome your feedback and suggestions. Just drop us a line and send to f.behmann@ieee.org.



Membership Development

New to IEEE ? Want a refresher on the benefits of your membership ?

Go to www.ieee.org/start for a step by step approach to maximizing your membership benefits.

ALSO, the IEEE has a special program to support new members with navigating all the benefits of being an IEEE member. Each month IEEE hosts a New Member Orientation Webcasts that typically start at 9:00 AM and 3:00 PM ET. These one hour Webcasts are intended to assist new IEEE members in navigating all the benefits of being an IEEE member. Go to www.ieee.org/start and look for the "Register now" hotlink for the next webinar.

Not an IEEE Member ? Have you been waiting for the right time to join ?

Join the IEEE this month and receive 14 months of the benefits of being an IEEE member for the price of 12. Go to www.ieee.org/join to begin receiving all the benefits of being an IEEE member NOW.

IEEE is the world's largest technical society, bringing members access to the industry's most essential technical information, networking opportunities, career development tools, and many other exclusive benefits. To find out more, go to www.ieee.org/membership

Opportunity to make a difference as an Engineer !

As an IEEE member, or simply as an Engineer, we get the opportunity to make a difference in the lives of future engineers AND have some fun at the same time! See the CTS web site or the URLs below for additional details on the listed opportunities.

Science Fair Judge - Yes it is science fair season again. There is a number of science and engineering focused schools in the CTS area that host science fairs each year. Commitments are typically a half day. Below are a few of those upcoming science fairs known to the CTS.

- Dec 1, Young Women's Leadership Academy - San Antonio, For further info please send a request to 023ywlams@gmail.com.
- Dec 1, John Jay Science and Engineering Academy - San Antonio, For further information about judging, go to <https://sites.google.com/a/nisd.net/john-jay-sea-science-fair/science-fair-judge-resources>
- Feb 2, 2019, Junior Academy of Science - San Antonio <http://www.arase.org>
- February 20-23, 2018, Austin Energy Regional Science Festival 2018 - Austin <http://www.sciencefest.org/index.php>
- March 2, 2019, Alamo Regional Science & Engineering Fair - San Antonio, <http://www.arase.org>

If you look, there are many more local Science Fairs that are listed above. Pick a school, register, and go make a difference in the next generation of engineers!

Joe Redfield
CTS Membership Development Chair
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210-744-2968



IEEE DAY 2018

LEVERAGING TECHNOLOGY FOR A BETTER TOMORROW

IEEE Day was celebrated during first week of October.
<http://www.ieeeday.org/>



IEEE CTS NOVEMBER EVENTS

05 IEEE PI2 Austin, NOVEMBER 2018, ChapComm, Officers Meeting

Time: 11:00 am - 1:00 pm -- **MORE INFO AND REGISTRATION:** <https://events.vtools.ieee.org/m/179811>

IEEE PI2 Austin, November 2018, ChapComm, Officers Meeting

Speaker:

pi2-secretary@ieee.org

Agenda:

Per agenda that will be distributed to officers prior to meeting.

Location:

Room: Front Conference Room
3701 Executive Center Dr Ste 258
Tom Green & Company Engineers, Inc
Austin, Texas
78731-1652

07 IEEE CTS EMC Chapter Meeting

Time: 6.30 pm - 89:00 pm -- **MORE INFO AND REGISTRATION:** <http://events.vtools.ieee.org/m/179393>

Central-Texas Chapter of the IEEE Electromagnetic Compatibility Society will meet as follows:

Refreshments: Food and drinks will be provided courtesy of AMD.

Reservations: Not necessary. See the EMC Society Chapter web site at <http://sites.ieee.org/ctx-emcs/> for more information and directions. This meeting is open to the public.

Presenter:

Speaker(s): Matt B. Lara

Agenda:

6:30pm – Social/food
7:00pm – Chapter Meeting
7:20pm – Technical Presentation
8:20pm – Wrap-up
8:30pm – Meeting ends

Location:

Bldg: B500
7171 Southwest Parkway
Austin, Texas
78735

08 Millimeter-wave MIMO Transceivers for Future Wireless Systems Seminar

Time: 12.00 pm - 1:00 pm -- **MORE INFO AND REGISTRATION:** <http://events.vtools.ieee.org/m/178601>

Presenter:

Dr. Jeyanandh Paramesh
Carnegie Mellon University

Abstract:

Directional communication using antenna arrays will be a centerpiece of future communication systems in the sub-6 GHz bands and in the millimeter-wave bands. Currently, highly integrated phased-array transceivers are emerging that support steering the main lobe of the antenna array pattern, thereby improving the link budget and providing some spatial filtering. However, in order to increase data rates, network capacity and achieve better interference management, advanced multi-antenna techniques are deemed essential in future wireless networks. These techniques include various forms of multiple-input-multiple-output (MIMO) signaling, adaptive null-steering, spatial equalization, interference mitigation etc. This talk will present recent advances in the design of advanced beamforming transceivers that can support such multi-antenna signal processing. In particular, the design of phased arrays that can address very wide swaths of millimeter-wave spectrum, and the design of hybrid beamformers that can support millimeter-wave MIMO communication will be described.

Location:

2501 Speedway
University of Texas at Austin
Austin, Texas
United States 78712
Building: EERC
Room Number: 3.646

10 IEEE PI2 Austin, Rolled-Ribbon Battery Company Tour

Time: 9:30 am - 12:01 pm -- **MORE INFO AND REGISTRATION:** <https://events.vtools.ieee.org/m/177190>

Tour of Rolled-Ribbon Battery Company, 14141 W Highway 290, Building #400, Austin, TX

Co-sponsored by:

Steve Pearson

Presenter:

Joel Sandahl,

Agenda:

Rolled-Ribbon® is the new standard for high-power high-capacity Li-ion cells and batteries. The Rolled-Ribbon Battery Company will provide a presentation on this new technology and a tour of the engineering pilot line that is being used to develop and produce Rolled-Ribbon cells and batteries

Coffee, beverages and donuts will be provided beginning at 9:30am. The presentation will begin at 10:00am

Location:

Bldg: #400
14141 W. Highway 290
Austin, Texas
78737

13 IEEE Life Member Austin – 13 November 2018 Meeting- The Measure Of The Universe

Time: 6:00 pm - 8:00 pm -- **MORE INFO AND REGISTRATION:** <http://events.vtools.ieee.org/m/179416>

Where In The Universe Are We? In orbital mechanics the state vector contains three basic pieces of information, position, time and velocity. Einstein taught that everything is relative, but in the context of the entire Universe, with respect to what? In this talk we will explore – starting locally and expanding out in stages to, well, everything we know about. This inevitably involves measuring distances and coordinates from the planetary to cosmic scale and also how time is marked on short and extremely long time scales. What are the means to make these measurements? Finally how are all of these things moving with respect to each other and what does ‘moving’ mean in a relative context.

Presenter:

Clyde Springen

Agenda:

6:00 PM – 6:30 PM – BBQ Dinner on your own and networking

6:30 PM – 7:45 PM – Business and Technical Presentation

7:45 PM – 8:00 PM – Networking

Location:

Bldg: Pok-e-Jo’s BBQ Rest.

2121 West Parmer Lane @ Lamplight Village St.

Austin, Texas

78727

14 Bioinformatics in Biology and Medicine

Time: 7:00 pm - 8:30 pm -- **MORE INFO AND REGISTRATION:** <http://events.vtools.ieee.org/m/180435>

Bioinformatics is an interdisciplinary and growing field in science for solving biological, biomedical and biochemical problems with the help of computer science, mathematics and information technology. In the field of bioinformatics disciplines like biology, information technology, mathematics and computer science draw upon the strength of each other to facilitate both research and discovery. A bioinformatics specialist uses computer programming and software development skills to design large databases and complex algorithms for biological information related to DNA, RNA, proteins, genomes, proteomes, metabolomes, expression data, pathways, etc.

Co-sponsored by:

IEEE Engineering in Medicine & Biology (EMB) San Antonio chapter

Presenter:

Sourav Roy

Location:

Room: Conference Room B

Bldg: University Center

St.Mary’s University

1 Camino Santa Maria

San Antonio, Texas

78228

15 IEEE Life Members Appreciation Dinner

Time: 5:30 pm - 8:30 pm -- **MORE INFO AND REGISTRATION:** <http://events.vtools.ieee.org/m/178472>

Annual IEEE Life Members Appreciation Dinner

Guests are \$20 each at the door, food provided by Life Members group, Comm/Signal Processing chapter & Computer chapter

Annual IEEE Life Members Appreciation Dinner

Guests are \$20 each (at the door), food provided by Life Members group, Comm/Signal Processing chapter & Computer chapter

Choice of three entrees: 6 ounce filet, grilled chicken or grilled salmon.

Open bar, desert TBD.

Expect sitdown to start around 6PM

The room holds 35 maximum

Location:

8400 N New Braunfels Ave

San Antonio, Texas

United States 78209

Building: The Barn Door

Room Number: Fireplace room

17 CTS Leadership Lessons from Austin Shakespeare and Tennessee Williams: Theater Performance

Time: 7:15 pm - 10:00 pm -- **MORE INFO AND REGISTRATION:** <http://events.vtools.ieee.org/m/176818>

Special Event! IEEE Day Celebration and Leadership Lessons (follow up) from Austin Shakespeare and Tennessee Williams! -PERFORMANCE and Champagne Reception

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 watch the opening night performance of *Cat on a Hot Tin Roof* and join the cast and crew for a delightful Champagne Reception backstage!

Join us for this exciting event! Bring a friend! And make new ones!

Agenda:

7:15 Pre-performance networking

7:30 Performance of *Cat on a Hot Tin Roof*

9:30 Champagne Reception

Location:

Bldg: Rollins Theater

Long Center

701 W Riverside Dr,

Austin, Texas

78704

19 CTS 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/179306>

We'll follow up our trip to see "Cat on a Hot Tin Roof" with an opportunity to discuss:

- What are some of the lessons we learned from the performance?
- How does attending the theater improve your creativity?

We'll follow up the opening night performance with

- A challenge and prizes
- Panel discussion—what were the lessons and how does attending the theater improve your creativity?
- Networking
- Great food and drinks!

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

Location:

Bldg: Just North of the Parking Garage. Park near West & 7th.
 Cirrus Logic
 800 W. 6th St
 Austin, Texas
 78701

29 IEEE EMBS/Computer Joint Chapters and ComSoc/SP – Austin, Presentation on "Smart explainability of complex predictive models in patient care"

Time: 6:00 pm - 8:00 pm -- **MORE INFO AND REGISTRATION:** <http://events.vtools.ieee.org/m/180124>

Presenter:

Adriana Beal

Adriana Beal has 25 years tech industry experience, ranging from IBM and HP to early-stage start-ups. Recent roles: Director, Product Management @ Gravitant, Data Analytics Consultant @ BP3 Global. Core expertise: machine learning, data analytics, and cloud computing.

Abstract:

Having a machine learning model, no matter how accurate, "spit out" a probability without a clear explanation of the reasons it made a certain prediction is unlikely to help healthcare professionals make the optimal recommendations for their patients. Still, in such circumstances sacrificing accuracy in favor of explainability is far from ideal. In many classification applications of machine learning, there is an expectation of false positives. This can be particularly troublesome in fields like healthcare, when, for example, a scoring system is used to predict the life expectancy of patients with advanced cancer for a decision of continuing with curative treatment vs. moving to palliative care.

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