IEEE Central Texas Newsletter

02 EDITORIAL Corner

IEEE CTS Chairman

Fawzi Behmann

During the month of March, we have concluded the first quarter of 2019 with monthly technical meetings, outreach activities at SXSW and conducting an annual audit of our operations for 2018 and established initial collaboration between CTS and Bangalore and Madras Sections in India.

07 IEEE Member Development

NEW TO THE IEEE OR WANT TO FIND OUT MORE ABOUT THE BENEFITS OF YOUR IEEE MEMBERSHIP?

The IEEE has developed a website, www.ieee.org/start , specifically to support new IEEE members in navigating though the IEEE. Along with the information on the site, IEEE has created a new member orientation video for you to watch at your convenience. Additionally, at the same URL is a starting point for many of the IEEE membership benefits.
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NOT AN IEEE MEMBER AND HAVE BEEN WAITING TO JOIN?

Join now with ½ year dues! Join IEEE and receive 10 months of membership for the price of six. If you have been away from IEEE for more than a year, you can re-join for half price!

08 IEEE Texas Technical Tour - 2019

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.

09 IEEE CTS EVENTS

Come and see our section events.

EDITORIAL Corner

Chairman, IEEE Central Texas Section

Fawzi Behmann

f.behmann@ieee.org

THIS MONTH'S EVENTS

During the month of March, we have concluded the first quarter of 2019 with monthly technical meetings, outreach activities at SXSW and conducting an annual audit of our operations for 2018 and established initial collaboration between CTS and Bangalore and Madras Sections in India.

It was also an opportunity to tabulate 2018 CTS activities. Here is a brief summary:

In 2018 CTS, established a mission: Strive to make Central Texas Section RELEVANT to the members and community at large.

- There are five objectives that were identified to achieve the mission include:
- Strengthening the base by ensuring the vitality of chapters and affinity groups
- Improving communications and training
- Building communities of interest
- Collaborating with other sections, regions, and societies
- Extending reach by Collaborating with other consortiums/councils, industry and government and academia

During 2018 there were a total of 302 reported meetings with an attendance of 6,284 IEEE members and 2,209 guests giving a total attendance of 8,493.

In 2018, we developed innovative ways to realize the CTS / Region 5 / IEEE-USA goals and making CTS relevant to the members and community. These included adding new approaches for funding our Student Branches, adding a NEW channel and funding for students community outreach projects and opening new dialog with industry, government and academia on focused initiatives and activities, encourage collaboration among Operational Units (OUes) in selecting compelling topics and intriguing speakers to be relevant to the local member and professional community.

We developed special activities to support our members and volunteers in both professional growth and contribution to our local communities. Examples include:

- As a basis of strengthening the base, CTS has launched a series of activities to simplify processes and procedures related to the budget plan, financial reporting, management, and training to chapter chairs and officers on both the operation and leadership of their chapters and affinity groups and improving newsletter format and content. 2018 was the first year to introduce quarterly reporting financial for each chapter so that necessary actions can be taken to stay on target. Issues with financial calculation such as carryover were simplified resolving some emerging issues. Section logo was created along with CTS landscape by the county as a part of the ongoing analysis for growth. In addition of profile of activities conducted in Austin and San Antonio, new activities have been created at San Marcos opening new channels for Students Community outreach projects (being credited by Texas State), More focused activities are being planned for student conference in 2019, developing communications portal expanding on the current CTS website.

- CTS reached out to the community and built a relationship with the Medical Community and after several successful past initiatives (e.g. IEEE Innovation Summit in Healthcare and Technology, Sept 7, 2017), CTS worked closely with Dell Medical, University of Texas in Austin, City of Austin and Other consortiums such as ACUP, Block-chain forum and organized and delivered workshop on Block-chain Initiatives for Healthcare on Oct 29, 2018 at Dell Medical Hospital. The workshop attracted many new people with a call for continuous dialogue where IEEE has taken a bold step to be relevant to the medical community. Further plan is set for 2019.

- CTS has organized and launched R5 Green Technologies (GreenTech) conference that took place in Austin April 4-6 (GreenTech). The theme of GreenTech is Smart City. The conference registration was 279 including ~50 volunteers. The GreenTech 3-day multi-track rich conference program that included:

    - Five keynote speakers from government and industry
    - Over 24 panel and speaker sessions on diverse topical areas (over 80 speakers)
    - 78 Papers, 46% acceptance rate, 17 technical sessions (over 80 authors)
    - Five workshops
    - 16 Exhibits
    - Two technical tours
    - $100,000 Smart City Pitch Competition – Launch
    - Reception and Banquet
    - Social/networking opportunities
    - The conference included representation by over 40 companies/institutions, set a new class of Website based on WPEngine – Rich of Plugins and compatibility with Mobile app
    - GreenTech was supported by IEEE IT contracted webmaster and support by MCE on conference registration.

- CTS organized R5 Business Meeting and Student Competition, held April 6-8, in Austin. Over 190 students from 27 sections participated in the events. Activities included Robotic Competition, Ethic Competition, Paper Competition, and Circuit design.

More details will be posted on the IEEE CTS – Central Texas Section website.

A. April 2019 Meetings, and Student Presentations

Please consult the remaining part of this newsletter and consult the calendar of events at the Section website http://sites.ieee.org/ctx/

Among the topics of interest for meetings and workshop:

- IEEE CTS EMC Chapter Meeting, **Prof. Alistair Duffy,**
  April 8, 2019, @ 6:00 pm
- IEEE CTS Life Member Austin, **"Big Bend National Park**"
  April 16, 2019, @ 6:00 pm
- IEEE CTS CTCN and Austin Life Member, **"When Artificial Intelligence (AI) meets Human Intelligence (HI)"**
  April 16 @ 6:00 pm
- IEEE CTS Joint ComSoc & SP, Computer and SMC/AESS Chapters, San Antonio, "Deep space communications for Earth to New Horizons Spacecraft."
  April 19, 2019, @ 12:00pm
- IEEE CTS PI2 Austin, **"Distributed Residential Generation "**
  April 23 @ 6:30 pm
- IEEE CTS Joint ComSoc & SP and Joint Computer & EMBS Austin Chapters, Student Projects Presentations, **"Smart Cities Patient Fall Detection" and "Smart City Concept Garage System"**
  April 24 @ 6:00 pm
- IEEE CTS PES, San Antonio, **"Distributed Energy Resources Voltage and Frequency"**
  April 25 @ 6:00 pm

B. Student Presentations

We are pleased to announce that we have launched a couple of credited courses for IoT Hands on – Outreach projects at Texas State in September 2018.
These projects will be presented in a special session on April 24 at AT&T Labs at 6 pm.
Everyone is welcome. Please RSVP at
Space is limited.

Here is a brief description:

Project i) Smart Cities Patient Fall Detection

Sponsor: IEEE Central Texas
Student Team: Christopher Grassel, Marco Castro, Samuel Mckinney, Jack R Sargeant
Faculty Advisor: Dr. Semih Aslan

The project will utilize a web-based application to manage a network of digital and analog devices, which will create a smart environment to increase patient safety. The system will monitor patients and display a video feed and data from pressure sensors to a monitor at the nurses' station.

Project ii) Smart City Concept Garage System

Sponsor: IEEE
Student Team: Rhylie Hoyt, Case Winter, Muhammad Ahmed, Wesley Nicol
Faculty Advisor: Dr. Damien Valles

A smart city concept garage system is a system installed in a standard garage that allows for multiple control options for the garage door, access to sensory data, web browsing monitoring access, and pipeline of data warehousing. The garage system will react to sensor readings that indicate danger, such as opening the garage door for ventilation if the carbon monoxide concentration is high. The system will be integrated with other systems that together make up a smart home.

C. 2019 Green Technologies Conference, La Fayette, April 3-5

2019 Green Technologies Conference

April 3-6, 2019

DoubleTree by Hilton Lafayette

1521 W Pinhook Rd
Lafayette, LA, 70503-3158

BOOK YOUR DISCOUNTED ROOM

Hotel Discount rate expires March 20

The IEEE Green Technologies Conference (IEEE GreenTech) was conceived to address one of the most pressing challenges of our time – How do we provide the reliable energy demanded by an environmentally sensitive world using energy resources in a sustainable and environmentally responsible manner.

Green and clean energy sources added to energy mix do provide challenges to the energy grid operators requiring active management of the available energy sources to provide a resilient power grid. The 11th Annual IEEE Green Technology Conference hopes is to draw insights and encourage collaboration from the many disciplines and the industrial collaborators required to address these challenges. The conference will be held at DoubleTree by Hilton that offers complimentary self-parking and is close by the Lafayette Airport using complimentary bus service. Registration is now open https://ieeegreentech.org/registration/

For any inquiries, please contact d.pierce@ieee.org, General Chair

D. 2019 IEEE Women in Engineering International Leadership Conference (WIE ILC), May 23-24, Austin

We are pleased to announce that WIE ILC conference will be held this year in downtown Austin.
Date: May 23-24, 2019
Location: JW Marriott, Austin, Texas, United States

With a focus on mid-to-senior, technology professionals, IEEE WIE ILC brings together female and male STEM leaders from around the world interested in advancing women leaders. IEEE WIE ILC provides an incredible opportunity for your organization to develop your technical staff, recruit professionals and support women in engineering and technology.

Exhibiting organizations have the ability to showcase their leading-edge technology. Prominent industry leader presentations will inspire IEEE WIE ILC attendees, who will have the opportunity to create communities that fuel innovation, facilitate knowledge sharing and provide support. Sign up today for one of the many opportunities or contact us to discuss a package customized to your company's needs!

Sign up today for one of the many opportunities or contact us to discuss a package customized to your company's needs!
Partnership Prospectus Link
Conference Registration is now open: Attendees & General Registration Homepage Link
e-mail: partners@ieee-wie-ilc.org
General inquiry: contact@ieee-wie-ilc.org

E. We'd like to hear from you

If you have an idea, suggestion, question or you like to volunteer, then please send an email to Fawzi Behmann, Chair, at f.behmann@ieee.org.

Thank You,

Chairman, IEEE Central Texas Section
Fawzi Behmann
f.behmann@ieee.org

Member Development

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Not sure if you've renewed for 2019, please go to www.ieee.org/renew or call the IEEE Contact Center at 1 800 678-4333.

It is easy to forget and easy to put off. If you haven't renewed your IEEE membership, or don't know if you have, go to www.ieee.org/renew NOW and find out or simply call 800 678-4333.

Did you know about IEEE – IEEE.TV?

The IEEE provides an internet-based television network where IEEE member generated special-interest programming about technology and engineering is provided. There are public programs available and an extensive set of members' only programs. Check the most viewed programs at www.ieee.tv

IEEE Member Discounts – Have you see what's available now?

Visit the Member Discounts page at www.ieee.org/discounts to discover this added perk of IEEE Membership.

Joe Redfield
CTS Membership Development Chair
J.Redfield@ieee.org
210-744-2968

IEEE Texas Technical Tour - 2019

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.

Registration: http://sites.ieee.org/ieee-tx-technical-tour/

vTools: https://events.vtools.ieee.org/m/178799

Questions: s.atkinson@ieee.org

Texas is the home to a number of centers of technical excellence of national importance, as well as several key IEEE historical awards including Milestones celebrating technological breakthroughs or turning points. These will form the basis for a number of technology-oriented visits throughout Texas organized by the San Antonio Life Member Affinity Group (LMAG) of the Central Texas Section, Region 5 of IEEE.

The Tour, limited to 50 guests, is scheduled for mid Oct 2019 and will consist of a 10-day bus tour to significant technical sites planned 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. Most meals, plus all transportation, entrance fees and gratuities are included in one price per person.

Cities:

- HOUSTON, TX
- SAN ANTONIO, TX
- AUSTIN, TX
- WACO, TX
- DALLAS, TX

We have vTools registration is now officially open.

Please check vTools registration Link https://events.vtools.ieee.org/m/178799

Questions should be referred to me at s.atkinson@ieee.org.

IEEE CTS APRIL 2019 EVENTS

2 Social Networking and Free Golf at Top Golf Austin

Time: 7:00 pm - 10:00 pm **-- MORE INFO AND REGISTRATION: https://events.vtools.ieee.org/m/195992**

Come out and network with other IEEE YPs and enjoy some sunny skies at the Top Golf driving range this April 2nd @ 7pm.

Register here: https://www.eventbrite.com/e/ieee-young-professionals-meetup-at-top-golf-tickets-58676304406

Location:
2700 Esperanza Crossing
Austin, Texas
United States 78758

04 IEEE PI2 Austin, March 2019, ChapComm, Officers Meeting

Time: 12.05 pm - 1:30 pm **-- MORE INFO AND REGISTRATION: https://events.vtools.ieee.org/m/196468**

IEEE PI2 Austin, April 2019, ChapComm, Officers Meeting

Location:
1101 South Mopac Expressway
IHOP Restaurant
Austin, Texas
United States 78746
Room Number: Private Dining

8 IEEE CTS EMC CHAPTER MEETING

Time: 6.00 Pm - 9:00 pm **-- MORE INFO AND REGISTRATION: https://events.vtools.ieee.org/m/196188**

Topic: Reverberation Chambers

Abstract: " This talk describes the basics of reverberation chambers, in a non-mathematical way, and discusses some of the research and development work undertaken by the presenter's team, including recent work on testing of Faraday Bags that led to the current work on IEEE Standards Project P2710 "Shielding performance of enclosures for portable electronic devices".
After the talk, we will adjourn to the host's lab where we will view and discuss Reverb chambers of different sizes and purposes. Depending on time, we will conduct a radiated immunity test and/or a shielding effectiveness test demonstration using a large, walk-in Reverb chamber using test automation software.
A number of Reverb experts will be in attendance at this meeting. This is a great opportunity for both an introduction to Reverb as well as an opportunity to ask questions of experts in the methodology.

Speaker:
Prof. Alistair Duffy of De Montfort University

Bio: Alistair is Professor of Electromagnetics at De Montfort University, Leicester, UK and Director of the Institute of Engineering Sciences at De Montfort. He is President Elect of the EMC Society and Chair of the Standards Development and Education Committee. He has active leadership roles in several conferences, including the International Symposium on EMC + SIPI and the Global EMC Conference 2019 in Bangalore. He was elevated to Fellow of the IEEE for his work on computational electromagnetics, a subject for which he has also been awarded his higher doctorate.

Location:
ETS-Lindgren
1301 Arrow Point Drive
Cedar Park, Texas
United States 78613
Room Number: 110

16 I EEE Life Member Austin – 16 APR 2019 Meeting- Big Bend National Park

Time: 6:00 pm - 9:00 pm **-- MORE INFO AND REGISTRATION: https://events.vtools.ieee.org/m/187743**

Big Bend National Park is southwestern Texas is an amazing place that every Texan should visit in the fall, winter or spring, although it is closed in the summer, when it becomes an incredibly inhospitable place

Agenda:

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

6:30 PM – 7:00 PM – Business

7:00 PM – 8:00 PM – Presentation

Location:
2121 West Parmer Lane @ Lamplight Village St.
Austin, Texas
United States 78727
Building: Pok-e-Jo's BBQ Rest

18 SAN ANTONIO LIFE MEMBER TOUR OF SCOBEE PLANETARIUM

Time: 11.00 am - 1:30 pm **-- MORE INFO AND REGISTRATION:** **https://events.vtools.ieee.org/m/197072**

Topic: Tour of the Planetarium at San Antonio College

Speaker:
Richard Varner: Center Director

Bio: Rick Varner is a graduate of the University of Florida with degrees in Elementary Education and Educational Supervision and Administration. His professional experiences as a middle school science teacher, district curriculum specialist and middle school assistant principal lead him to a position at NASA's Goddard Space Flight Center as an education specialist. Rick supported NASA Education professional development and student events across the northeastern states for more than seven years before joining the Scobee Education Center as its first center director in the summer of 2014.

Rick's work with NASA has included several notable education and public outreach events; numerous Space Station downlinks, the Final Servicing Mission to the Hubble Space Telescope (STS-125), the launch of the NASA Summer of Innovation initiative, JSC's Destination Station events in Boston, NASA's 50th Anniversary celebration on the National Mall for the Smithsonian Folklife Festival and the planning and presentation of educator professional development events associated with the opening of the Discovery and Enterprise exhibits at the Smithsonian's Udvar-Hazy Museum at Dulles Airport and the Intrepid Air, Sea and Space Museum in NYC.

As the center director of the Scobee Education Center Rick has been recognized in 2017 with the excellence award from the National Institute for Staff and Organizational Development.

Location:
1819 N. Main Ave,
San Antonio, Texas,
United States, 78212

19 IEEE CTS JOINT COMM/SP, COMPUTER, AND SMC/AESS MEETING

Time: 12.00 pm - 1:15 pm **-- MORE INFO AND REGISTRATION:** **https://events.vtools.ieee.org/m/194720**

Topic: Deep space communications for Earth to New Horizons Spacecraft

Speaker: Dr. Tapley, Southwest Research Institute.
Dr. Tapley has a PhD in Aerospace Engineering from Stanford University, a MS in Aerospace Engineering from MIT, and a BS in Engineering Science from UT Austin. Dr. Tapley's final education centered on analysis of geodetic missions. He worked with the Gravity Probe B mission at Stanford University, in utilizing its extremely quiet dynamic environment to enhance recovery of gravitational field observations with the gyroscope suspension and GPS navigation systems. Dr. Tapley also served as a Systems Engineer on that extremely challenging mission. Beginning in 1996, Dr. Tapley became the Mission System Engineer for the very successful IMAGE mission for ionospheric and magnetic imaging. His responsibilities for IMAGE included requirements tracking and verification for which he oversaw development of a database system later used on other GSFC missions. He also wrote and conducted payload functional tests and served as second shift Mission Operations Manager for the 40-day IMAGE in orbit checkout period, and later automated much of the routine command generation process for the IMAGE science payload.

Location:
145 Tom Slick Ave
San Antonio, Texas
United States 78238-5166
Building: SwRI Cafeteria (Building 161)
Room Number: Private Dining

23 IEEE PI2 Austin, April 2019, Tech Meeting, "Distributed Residential Generation"

Time: 6.30 pm - 8:45 pm **-- MORE INFO AND REGISTRATION: https://events.vtools.ieee.org/m/196902**

Topic: " Distributed Residential Generation"

Abstract: Scott will discuss the current state of distributed residential generation, energy storage and aggregation of fixed/V2G energy storage systems. He will also touch on some of the issues fixed by the expected California Rule 21 rollout and some of the issues introduced as well.

Speaker: Scott Hinson of Pecan Street
Scott leads the development of the Pike Powers Commercialization Lab. He worked at a thin film CIGS solar module manufacturer where he led module packaging, performance, certification and reliability efforts. Prior efforts include work in the military, medical, consumer and oil industries developing power supplies, precision measurement equipment and inductive heating technologies. Scott received his B.S.E.E. from The University of Texas at Austin with undergraduate specializations in both communications systems and power distribution.
Scott was awarded the 2015 Outstanding Engineering Award for "transforming the world's understanding of consumer and community electricity usage" by the IEEE Power Engineering Society Central Texas Chapter.

Location:
2700 West Anderson Lane
Austin, Texas
United States 78757
Building: Cover 3

24 IEEE ComSoc/SP and EMBS/Computer Joint Chapters Austin, Student Projects Presentations

Time: 6:00 pm - 8:00 pm **-- MORE INFO AND REGISTRATION : https://events.vtools.ieee.org/m/197055**

IEEE Austin ComSoc & SP and EMBS & Computer Joint Chapters - Free Food/Snacks and Beverage

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Location:
9505 Arboretum
Austin, Texas
United States 78729
Building: AT&T Labs
Room Number: #220

25 DER VOLTAGE AND FREQUENCY RIDE-THROUGH - SAN ANTONIO PES

Time: 6:00 pm - 8:00 pm **-- MORE INFO AND REGISTRATION : https://events.vtools.ieee.org/m/196541**

PES San Antonio Monthly meeting - Distributed Energy Resources Voltage and Frequency

Topic: " Distributed Energy Resources Voltage and Frequency"

Abstract: R&D activities in supercritical CO2 power cycles, and he was also going to include advanced coal combustion/power plants and chemical/thermal energy storage.

Speaker: Curtis B Cryer of CPS Energy
Curtis is a Distribution Planning Engineer for CPS Energy. One of his responsibilities is intigrating distributed energy resources into the distribution system. As a licensed Professional Engineer since 1984 with 40 years of experience in utility power systems including AC power distribution design and operation, power quality, power utilization equipment and distributed generation. He graduated from the Oregon State University with a BS in Electrical Engineering Power Systems and Instrumentation in 1978.
Email: cbcryer@ieee.org

Agenda:

6:00 PM to 6:30 PM Registration
6:30 PM to 7:00 PM Meal
7:00 PM to 8:00 PM Speaker

Location:
Room: Meeting room
Bldg: Gradey's BBQ
4109 Fredericksburg Rd
San Antonio, Texas
78201