

02 EDITORIAL Corner



IEEE CTS Chairman

Fawzi Behmann

May has proven to be a very active month for our Section and many of the Chapters and Affinity Groups. Activities included a Senior Design Day, the Austin Forum on Science and Technology special event on 5G Wireless Communication, the IEEE Vision, Innovation Challenges Summit, NI Week, the Texas Smart Cities Summit, and the IEEE Women in Engineering International Leadership Conference just to name a few.

10 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 through 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.

If you are a new member to IEEE OR just want to refresh yourself on the GREAT benefits the IEEE offers to its members, check out the site and the orientation

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!

www.ieee.org/join

11 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.

12 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

A. May Highlights:

May has proven to be a very active month for our Section and many of the Chapters and Affinity Groups. Activities included a Senior Design Day, the Austin Forum on Science and Technology special event on 5G Wireless Communication, the IEEE Vision, Innovation, Challenges Summit, NI Week, the Texas Smart Cities Summit, and the IEEE Women in Engineering International Leadership Conference just to name a few.


We are starting a Special Feature Section in our newsletter this month that will include a short write-up about workshop/article/demo/activities that contribute to advancing knowledge for the benefit of the local community.

As witnessed by many of the activities conducted in May, many have expressed their interest to help out. Beginning in this issue, and in the section about help needed, more details will be provided on how Chapters, Affinity Groups, and other organizations can participate.

We hope to provide even more engaging and compelling content in the upcoming issues.

DETAILS:

A.1 Senior Design Day (May 7): The Texas State, Ingram School of Engineering at San Marcos held a special Senior Design Day at the new Ingram Hall facility that was dedicated at a ribbon-cutting ceremony on November 8, 2018. This was the first time this biannual event was held in the new 166,000 square foot facility. Graduating students from different disciplines presented 55 team capstone projects to a panel of faculty, students, industry partners, and sponsors.

Smart Cities Patient Fall Detection		Smart City Garage System
		
		
Team: Christopher Grassel, Marco Castro, Samuel McKinney, Jack R Sargeant Faculty Advisor: Dr. Semih Aslan IEEE Sponsor: Fawzi Behmann		Team: Rhylie Hoyt, Case Winter, Muhammad Ahmed, Wesley Nicol Faculty Advisor: Dr. Damian Valles IEEE Sponsor: Fawzi Behmann

IEEE was pleased to sponsor two Outreach credited projects on Smart City IoT, one on “Smart Cities Patient Fall Detection” and the other on “Smart City Concept Garage System.” Each project is two semesters and consists of a team of 4 students and an advisor. Students made use of the new “maker-space” at Ingram Hall, which includes 3-D printers, laser cutters and engravers, metal and plastic mills, a water jet table, and recycling equipment for 3-D printer waste. Welding, sheet metal work, printed circuit board fabrication, and woodworking equipment in the space mean the students can design and build nearly all the components for their projects themselves, providing valuable experience and reduced costs.

A.2 Austin Forum (May 14) 5G: THE WIRELESS COMMUNICATIONS TECHNOLOGY THAT WILL TRANSFORM SOCIETY:

5G technology is the imminent, transformative wireless communications system that will revolutionize connectivity by enabling many more devices to communicate far faster and more reliably. 5G will enable new classes of increasingly powerful devices, applications and uses—including making connected cars feasible, smart cities more integrated, and ultimately produce the fabric for achieving the vision of a comprehensive Internet of Things (IoT).

The FCC is streamlining processes to enable the deployment, and 5G low-latency and real-time control capabilities will enable innovation, but challenges remain, including the real issue of the new network core that must be developed.

<https://www.austinforum.org/may2019.html>

The event was held at the Central Austin Library. Thanks to the speakers Fawzi Behmann (TelNet Management Consulting Inc.), Arun Ghosh (AT&T), and Amber Gunst (Austin Technology Council) for sharing their insights and views on the 5G revolution.

**5G: The Wireless Communications Technology
That Will Transform Society**

May 14, 2019
Austin Central Library





Dr. Arun Ghosh
AT&T Labs



Fawzi Behmann
TelNet Management
Consulting



Amber Gunst
Austin Technology
Council



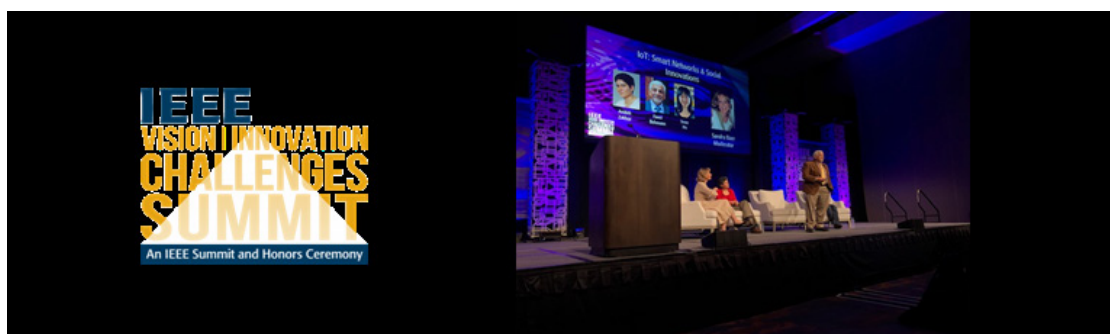
A.3 IEEE Vision, Innovation Challenges Summit (May 17), San Diego

The 2019 IEEE Vision, Innovation, and Challenges Summit (IEEE VIC Summit) & Honors Ceremony were held on Friday, May 17th at the Marriott Marquis San Diego, California, USA. There were over 15 countries and more than 300 participants ranging from students to mid-high level career professionals.

This year's IEEE VIC Summit highlighted the critical role of women in technology with a keynote presentation from Dr. Telle Whitney, "Our Time to Lead: Women and Men Creating Technology Together, and Defining Our Future." Dr. Whitney is a senior executive leader, a recognized expert on diversity, and a true pioneer on the issue of women in technology.

In the evening, IEEE rolled out the red carpet at the IEEE Honor Ceremony Gala, where the achievements of IEEE Life Fellow Kurt Petersen were celebrated as he was honored with the IEEE Medal of Honor—IEEE's highest award—for his visionary contributions that led to the global growth of MEMS.

Fawzi Behmann, Chair IEEE Central Texas Section, participated in a panel discussion on IoT-Smart Network and Social Innovations.



Panel: IOT – Smart Networks and Social Innovations

10:30 AM - 11:30 AM
MGB 8 & 9



Zakhori, Avidah



Behmann, Fawzi



Hu, Irene



Baer, Sandra

with Moderator, Sandra Baer, President, Personal Cities with panelists Avidah Zakhori, Berkeley; Fawzi Behmann, President, TelNet Management Consulting, Inc. and Vice-Chair, IEEE NA Communications Society; Irene Hu, Hardware Engineer, Biobot Analytics.

A.4 NI Week

NI Week was held in Austin Convention Center, May 20-23, 2019.



NI Week, hosted annually by National Instruments, provided an ideal opportunity to access technical sessions, case study presentations, and panel discussions led by industry innovators, with over 3,200 industry attendees from more than 60 countries attending and networking.

The Central Texas Section participated and set up a booth led by Joe Redfield and supported by James Mercier, Bill Martino, and Fawzi Behmann. Participants had many discussions with other attendees, and availed themselves of several forms of profiles about IEEE, Benefits, Central Texas, and meetings and events captured in flyers made available to attendees along with other promotional material.

A.5 Texas Smart Cities Summit

May 21, 2019

Austin Public Library, Downtown Branch, Texas

This inaugural event brought together thought leaders, policy makers, designers, and developers to develop plans & priorities to accelerate Smart City efforts across the state of Texas. Smart Cities practitioners were able to share ideas, resources and best practices in the forums, and discussed plans and new efforts to accelerate smart cities development in Texas in a number of areas, including mobility, safety, sustainability, health, environmental quality, and economic development

IEEE Central Texas Section participated as a silver sponsor at the summit along with Intel, the City of Austin Housing Authority, and Smart Cities Connect.

Foundational & Gold Sponsors included: Accenture, AT&T, Dell EMC, Nvidia, IOTA Foundation, ARM, Siemens, AirLabs and Dell Boomi.



Mayor Steve Adler opened the Summit followed by Market Trends from global market intelligence firm IDC and a panel discussion among the City leaders of Austin, Dallas, San Antonio, and Houston. The workshop was conducted in the afternoon followed by the exhibit and networking reception

IEEE CTS, in collaboration with Texas State, exhibited two smart cities projects.

The team consisted of Damian Valles, Semih Aslan, Fawzi Behmann, Vittal Siddaiah, and Tarun.



A.6 2019 IEEE Women in Engineering International Leadership Conference (WIE)

<http://ieee-wie-ilc.org/>

The ILC-WIE Conference was held in Austin May 23-24 at JW Marriott, with a focus on mid-to-senior, technology professionals, IEEE WIE ILC brought together female and male STEM leaders from around the world interested in advancing women leaders. The IEEE WIE ILC forum provided an incredible opportunity for organizations to develop their technical staff, recruit professionals, and support women in engineering and technology.

Exhibiting organizations had the ability to showcase their leading-edge technology. Prominent industry leader presentations were inspiring to IEEE WIE ILC attendees, enabling them to create communities that fuel innovation, facilitate knowledge sharing, and provide support.

Representatives (Fawzi Behmann and Leslie Martinich) from Central Texas Sections supported the conference and were part of the exhibits



B. Special Feature

B.1 IEEE's Industry Applications Society's Oldest Chapter celebrates IAS 55th Anniversary

Austin is home to the first Chapter in the history of IEEE IAS, formed February 12, 1964. (IAS Magazine, 50-Year Supplement issues Jan/Feb 2015 (Vol21, No.1) ISSN 1077-2618). Those of us who were around back then will remember the '60s were a fluid time, and this was true for IEEE as well.

How is it that an IEEE Chapter was formed before the Regions and Societies were created? Here's the pathway:

- 1963 – IEEE formation by combining the AIEE (American Institute of Electrical Engineers) and the IRE (Institute of Radio Engineers)
- IEEE created the IEEE Industry and General Applications Group (IGAG) by combining the Industry Division and the General Applications Division of AIEE – Austin members quickly formed the Austin Chapter of IGAG in 1964.
- Later in the 1960s, the IEEE Technical Activities Board created a process for elevation to a Society with a President as the head officer, and IGAG applied and officially became the *Industry Applications Society* in the great Central Texas Section, Division 5 of IEEE on January 1, 1972.

Over the years, the Austin IAS chapter had risen and slowed down in activity, until 2011, when the Austin PES (Power & Energy Society) chapter (Don Dumtra, Chair) approached the IAS, PELS (Power Electronics Society) and IES (Industrial Applications Society) to form a joint society chapter, (PI)²! Happy Anniversary, (PI)²!

To see more about the Industry Applications Society, including comments by Dave Durocher, Editor-In-Chief of the IAS Magazine, applauding IAS' longevity, and to see a demo of exothermic welding at the (PI)² Chapter's spring Grounding workshop, check this link to Spectrum News coverage:

<https://spectrumlocalnews.com/tx/austin/news/2019/03/28/local-engineers-demo-high-tech-weld--celebrate-anniversary>



B.2 IEEE (PI)² Austin Workshops Attract Attendees by Targeting Their Needs

"Pi-Squared" is the given name for the IEEE joint chapter for four IEEE Societies: Power & Energy, Industry Applications, Power Electronics, and Industrial Applications. While PES and PELS chapters are often joined, years ago, the chapters found that they could meet the needs of more people with joint meetings of the four societies and more diverse topics. Attendees enjoy the expansion of technical meeting subjects as well as the variety of plant and tech tours that Chapter Committee can provide. (PI)² offers 10 technical meetings and at least one workshop annually, as well as multiple tours and socials at local breweries.

The Austin Chapter counts as one of its biggest successes a 10-year history of annual workshops – successful because they are appealing for a diverse group and meet training and/or licensure requirements, and also for the quirky location. While some workshops have been on current topics – such as solar energy or utility transformer design, the National Electric Code is the frequent topic – either for Code updates, or to dig into specific areas such as grounding, protection, motors, and drives or medium voltage issues. The Chapter has partnered with Eaton and Tom Domitrovich as a lecturer for these topics. Tom's in-depth knowledge base and engaging presentation and discussion style make the full day, or two days, fly by.

In recent years, the Chapter has hosted the Workshops in the interesting and comfortable Scottish Rite Theater in downtown Austin. Known for its family and children's theatrical presentations, beautiful star-studded ceiling and history as Austin's oldest theater, the venue serve well for a technical workshop with the theater floor cleared of seats so that tables, chairs, and electrical supplies for tech can be set up. The deal is sweetened with breakfast tacos, snacks, and beverages during the day, local restaurants for lunch, and sometimes Round Rock Donuts for the crowd. Drawings for door prizes (sometimes a big one!) are always a pleaser. This year the Workshop had prizes for correct answers about IAS, in honor of the creation of IAS in Austin 55-years ago!

IEEE (PI)² Austin has found a great recipe – topics that members and others want and/or need, knowledgeable and dynamic lecturers, a comfortable and interesting location, good food and good people. Sounds like Austin!



C. Other Meetings and Events:

- [CTS WIE Cross Cultural Communications](#)
June 17, 2019 - 06:30 PM - 08:00 PM
- [CTS TEMS Cross Cultural Communications](#)
June 17, 2019 - 06:30 PM - 08:00 PM
- [CTS YP Cross Cultural Communications](#)
June 17, 2019 - 06:30 PM - 08:00 PM
- [CTS Education Society Cross Cultural Communications](#)
June 17, 2019 - 06:30 PM - 08:00 PM
- [Senior Member Application Event](#)
June 18, 2019 - 05:00 PM
Are you seeking to become a senior Member at IEEE? Check the qualifications and consult with date and location.
- [IEEE Life Member Austin - 19 June 2019 Meeting- Wills and Trusts](#)
June 18, 2019 - 06:00 PM
- [IEEE PI² Austin, Tour of Teco-Westinghouse and PELS Anniversary Celebration](#)
June 20, 2019 - 11:00 AM
- [The Yagi antenna - how it works, and some interesting history](#)
June 20, 2019 - 11:30 AM
- [IEEE Computer & EMBS and ComSoc & SP joint Chapters - Austin, Special topic "Accelerating AI using HPC."](#)
June 20, 2019 - 06:00 PM

Please consult this issue of the newsletter for other meetings, and events planned by various society chapters and affinity groups in Central Texas section.

D. Volunteering, Ideas and Suggestions

Central Texas Section offers excellent opportunities to participate in the growth of the section.

Opportunity to

- Join and grow chapters/Affinity group
- Speak on a subject you are passionate about
- Lead an activity that impacts the community
- Help out
- Volunteer for an event
- Start a discussion group
- Invite others to be on the CTS Newsletter mailing list
- Send question

Please send an email to Fawzi Behmann, Chair at f.behmann@ieee.org.

Thank you for being part of the CTS mission, in bringing relevant topics, being part of the dialog and discussion and networking events, and in serving our members and communities.

Thank You,

Chairman, IEEE Central Texas Section

Fawzi Behmann

f.behmann@ieee.org

Message from CTS Chairman



Member Development

Not an IEEE member and have been waiting to join?

Join now with ½ year dues! Join IEEE and receive 9 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! www.ieee.org/join

Want to SUPERSIZE your IEEE membership?

IEEE Senior Member. You may be eligible to be an IEEE Senior Member if you:

- are an engineer, scientist, educator, technical executive, or an originator in one of the IEEE-designated fields;
- have been in professional practice for at least ten years (with some credit for certain degrees); and
- can show significant performance over a period of at least five of your years in professional practice.

If you think you meet the above criteria or want to find out if you meet the criteria, the Central Texas Section is hosting Senior Member Application Event in Austin the evening of June 18th for you to find out. See <https://events.vtools.ieee.org/m/198673> for details.

To find out more about the benefits of being an IEEE Senior Member go to <https://www.ieee.org/membership/senior/>

Did you know about IEEE - IEEE ResumeLab?

IEEE has member benefit, the IEEE ResumeLab. The ResumeLab is an online service that allows IEEE members to develop a resume or curriculum vitae using a wide array of resume templates. The site is great for new engineers just entering the job market or for those seasoned engineers who want to update their resume and interviewing skills. Log on and check it out at www.ieee.org/resumelab

Joe Redfield
CTS Membership Development Chair
J.Redfield@ieee.org
210-522-3729

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 JUNE 2019 EVENTS

13 IEEE PI² AUSTIN, JUNE 2019, CHAPCOMM, OFFICERS MEETING

Time: 11:59 am - 1:30 pm -- **MORE INFO AND REGISTRATION:** <https://events.vtools.ieee.org/m/198934>

IEEE PI2 Austin, June 2019, ChapComm, Officers Meeting

Location:

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

17 CTS WIE CROSS CULTURAL COMMUNICATIONS

Time: 6:30 pm - 8:00 pm -- **MORE INFO AND REGISTRATION:** <https://meetings.vtools.ieee.org/m/199768>

IEEE Event, brought to you by IEEE Young Professionals, Women in Engineering, Technology and Engineering Management Society and Education Society.

Agenda:

6:30 Snacks, drinks and networking!
7:00 Discussion; Games for the Kids
8:00 Adjourn

Location:

Cirrus Logic
702 West Avenue
Austin, Texas
United States 78701
Building: Just North of the Parking Garage. Park near West & 7th.

17 CTS TEMS CROSS CULTURAL COMMUNICATIONS

Time: 6:30 pm - 8:00 pm -- **MORE INFO AND REGISTRATION:** <https://meetings.vtools.ieee.org/m/199769>

IEEE Event, brought to you by IEEE Young Professionals, Women in Engineering, Technology and Engineering Management Society and Education Society. Join us for great food and drinks, good company and a fantastic discussion, focused on developing your career. No charge for this event! Bring your family and friends! And make new ones (friends, that is)!

Agenda:

6:30 Snacks, drinks and networking!
7:00 Discussion; Games for the Kids
8:00 Adjourn

Location:

Cirrus Logic
702 West Avenue
Austin, Texas
United States 78701
Building: Just North of the Parking Garage. Park near West & 7th.

17 CTS YP CROSS CULTURAL COMMUNICATIONS

Time: 6:30 pm - 8:00 pm -- **MORE INFO AND REGISTRATION:** <https://meetings.vtools.ieee.org/m/199770>

IEEE Event, brought to you by IEEE Young Professionals, Women in Engineering, Technology and Engineering Management Society and Education Society

Agenda:

6:30 Snacks, drinks and networking!

7:00 Discussion; Games for the Kids

8:00 Adjourn

Location:

Cirrus Logic

702 West Avenue

Austin, Texas

United States 78701

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

17 CTS EDUCATION SOCIETY CROSS CULTURAL COMMUNICATIONS

Time: 6:30 pm - 8:00 pm -- **MORE INFO AND REGISTRATION:** <https://meetings.vtools.ieee.org/m/199771>

IEEE Event, brought to you by IEEE Young Professionals, Women in Engineering, Technology and Engineering Management Society and Education Society

Agenda:

6:30 Snacks, drinks and networking!

7:00 Discussion; Games for the Kids

8:00 Adjourn

Location:

Cirrus Logic

702 West Avenue

Austin, Texas

United States 78701

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

18 SENIOR MEMBER APPLICATION EVENT

Time: 5:00 pm - 9:00 pm -- **MORE INFO AND REGISTRATION:** <https://events.vtools.ieee.org/m/198673>

"Supersize" your IEEE Membership - Apply to Upgrade to Senior Member Status

Tuesday, June 18, 2019 from 5 PM to 9 PM

Casa Chapala Mexican Cuisine & Tequila Bar, 9041 Research Blvd, Suite 100, Austin, 78758.

If you are an IEEE member with a baccalaureate degree in engineering and seven or more years of professional experience you are eligible to apply for upgrade to Senior Member Grade. Complete upgrade information, including requirements can be found at:

<https://www.ieee.org/membership/senior/senior-requirements.html>

Location:

Casa Chapala Mexican Cuisine & Tequila Bar

9041 Research Blvd, Suite 100

Austin, Texas

United States 78758

18

IEEE LIFE MEMBER AUSTIN - 19 JUNE 2019 MEETING- WILLS AND TRUSTS

Time: 6.00 pm - 8:00 pm -- **MORE INFO AND REGISTRATION:** <https://events.vtools.ieee.org/m/187741>

The Austin Life Members' Group promotes the development of members through professional and social networking, addressing topics of interest to Life Members, including volunteer activities, and supports the IEEE Central Texas Section. [Website: http://webinabox.vtools.ieee.org/wibp_home/index/LM500051/](http://webinabox.vtools.ieee.org/wibp_home/index/LM500051/)

Life Members need to be sure that their wills and Trusts still reflect their intentions as personal circumstances and the legal and tax environment evolve. In this talk, DJ will explain why do you need a Will and what is a Trust, and how they are helpful to manage your financial asset and benefit your loved ones.

Topic: "Wills and Trusts "**Speaker:** D. J. Thompson

Bio: DJ began his career at TI, as software developer. During his 15 year term, he advanced technically as well as developed very deep skills in project accounting and costing, ending his career as a contract negotiator/deployment manager for mainframe computer systems in international locations. After TI he was VP/COO of a family construction business that was in deep financial trouble. After the closure of the company, DJ was named "controller" of the distribution/printing business for Hart Graphics, here in Austin. At Hart, he completed the work requirements for a CPA. He was instrumental in the divestiture of Hart's distribution business. The last 15 years of his career were spent in contract development, costing and implementation of network systems for AT&T and the USDA. He earned a BSEE from Rice, MSEE from UT Austin, and MBA from SMU. He holds a Texas CPA license.

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.

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IEEE PI2 AUSTIN, TOUR OF TECO-WESTINGHOUSE AND PELS ANNIVERSARY CELEBRATION

Time: 11.00 am - 12:30 pm -- **MORE INFO AND REGISTRATION:** <https://meetings.vtools.ieee.org/m/199304>

RSVP by registering here. Contact the host if you have questions (Steve Pearson, steve@pearsonstrategy.com, 512-466-1450)

With a legacy dating back to George Westinghouse, TECO-Westinghouse is a longstanding world leader in manufacturing electric motors from fractional to 100,000 HP.

These high-quality machines are used to drive pumps, fans, compressors, rolling mills, grinders, crushers, and a variety of other rugged applications. Our motors and generators are utilized in petroleum, chemical, pulp, paper, mining, marine propulsion, steel, electric utility and other industries throughout the world.

<https://www.tecowestinghouse.com/company/company-profile/>

Location:

5100 N Interstate Hwy 35

Round Rock, Texas

United States 78681

20

THE YAGI ANTENNA - HOW IT WORKS, AND SOME INTERESTING HISTORY

Time: 11.30 am - 1:00 pm -- **MORE INFO AND REGISTRATION:** <https://meetings.vtools.ieee.org/m/199320>**Topic:** "The Yagi antenna - how it works, and some interesting history"

Abstract: The Yagi-Uda antenna was invented in the 1920s, in Japan. In the 90-plus years since then, it has gone from a most-secret component to a common catalog item. Its design formulae are complex, but its operation is simple to explain. This talk will attempt to give that simple explanation with minimal hand-waving. In addition to the theory of operation, the talk will give some history that may surprise you.

Speaker: Tom O'Brien

Tom O'Brien has had a varied engineering career, starting with a stint at Vought in Dallas, doing flight control systems engineering. His work shifted, with the volatile job market, into computer systems analysis and engineering, at University Computing, Trans World Airlines, Tres Computer Systems, and IBM Federal Systems. At IBM, he worked in Space Shuttle avionics, including the software for the Shuttle Remote Manipulator System. Later work in computer systems took him to Shell Services in Houston, and then back to aerospace with United Space Alliance. He retired from USA after another robotics project involving the International Space Station. After retirement, Tom and Susanne moved to San Antonio, where they have been involved in family and volunteer activities, including Tom's work with IEEE Central Texas Section. Tom holds a BSEE from Texas A&M and an MS(Telecom) from SMU. He is a Life Member of IEEE, and a Registered Professional Engineer (EE) in Texas. Tom has been licensed as an amateur radio operator since 1958, and currently holds Extra Class license as AB5XZ.

Location:

8633 Crownhill
San Antonio, Texas
United States
Building: La Fonda Alamo Heights

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IEEE COMPUTER & EMBS AND COMSOC & SP JOINT CHAPTERS - AUSTIN, SPECIAL TOPIC "ACCELERATING AI USING HPC"

Time: 6.00 pm - 8:00 pm -- **MORE INFO AND REGISTRATION:** <https://meetings.vtools.ieee.org/m/199602>**Topic:** "Accelerating AI using HPC"

Abstract: We are using templating technique in parsing the file. In this technique, the file format is known apriori and enumerated in a structure to parse the spatial data. Experimental results show that parallelization would yield better performance but do not scale with the increase in the number of threads. Beyond a threshold, disk I/O would be a bottleneck to performance, and an increase of computational threads would result in a significant drop of performance. This experiment would explain the evaluation of threshold that could be the benchmark for AI engines to spawn the parallel compute engines for optimal performance in an HPC environment.

Speaker: Vittal Siddaiah,

Ingram School of Engineering, Texas State, San Marcos

Vittal is system engineer at Intel with 15 years of experience in silicon validation. He led the design of machine learning strategies based Regression Tool Suite for emulation and post-silicon validation, enhancing performance, and reducing the time to triage. He is distinguished for his contributions to the high-performance design of tools in the field of data-analytics and measurements. He has earned several recognitions and awards, including "One Generation Ahead Award" and "Waste Elimination Award." Vittal has Bachelors in Electronics Engineering, and Masters in Management, M Phil in Management, Masters in Mathematics.

Location:

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

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IEEE PI2 AUSTIN, JUNE 2019, TECH MEETING, "WEATHER EFFECTS ON RADIO COMMUNICATIONS"

Time: 6.30 pm - 8:30 pm -- **MORE INFO AND REGISTRATION:** <https://meetings.vtools.ieee.org/m/199765>

IEEE PI2 Austin, June 2019, Tech Meeting

We ask that all attendees order at least \$20 in food and drink or consider this to be a cover charge.

Topic: "Weather Effects on Radio Communications"**Abstract:** Burton Fitzsimmons, Chief Meteorologist, Carter Communications will speak on Weather Effects on Radio Communications**Speaker:** Burton Fitzsimmons of Charter Communications

Burton Fitzsimmons was born and raised in San Antonio, where he grew up watching storm clouds develop and change from the hilltop view of his childhood house. Burton's passion for weather eventually earned him a Bachelor of Science from the University of Texas at Austin and a Certificate of Broadcast Meteorology from Mississippi State University. Today, you can find him covering the latest storms with the Spectrum News weather team.

For Burton, reporting the weather on Spectrum News allows him to take a personal approach by combining strong scientific analysis while using his real-life personality to connect with viewers on how the weather will impact their daily lives.

Agenda:

Registration, Dinner and : 6:00 to 6:30PM

Social & Business Meeting: 6:30 to 7:00 PM

Program 7:00 to 8:30 PM

Location:

2700 West Anderson Lane

Austin, Texas

United States 78757

Building: Cover 3

27

TXTKTR4100

Start Time: June 27, 2019 - 01:00 AM**End Time:** July 01, 2019 - 11:59 PM-- **MORE INFO AND REGISTRATION:** <https://events.vtools.ieee.org/m/199383>

This event is a special one for those taking the IEEE Texas Technical Tour who might want to make their final Tour payment by PayPal/CreditCard in the amount of \$4,100. If so, just do the registration process to complete the payment.

Location:

Houston, Texas

United States

27 TXTKTR3100

Start Time: June 27, 2019 - 01:30 AM**End Time:** July 01, 2019 - 12:59 PM**-- MORE INFO AND REGISTRATION:** <https://events.vtools.ieee.org/m/199292>

This event is set up to receive the balance of \$3,100 on the IEEE Texas Technical Tour. This site has a limited life time and will expire on May 25th at midnight.

Location:

Houston, Texas
United States

27 TXTKTR4300

Start Time: June 27, 2019 - 01:30 AM**End Time:** July 01, 2019 - 12:59 PM**-- MORE INFO AND REGISTRATION:** <https://events.vtools.ieee.org/m/199293>

This event is for the specific purpose of those IEEE Texas Technical Tour Travelers whose final payment balance is \$4,300 per person.

Location:

Houston, Texas
United States