On Friday, August 2\textsuperscript{nd}, 2019 I had the opportunity to attend the EVO19 Conference in Pittsburgh, PA and will be forever grateful from the people I met, learned from and shared leadership experiences.

Changing times demand an \textbf{Evolution of You™}. The dynamics of Leadership are shifting constantly – to stay ahead of the curve, your business skill set must evolve as well. EVO is a one-of-a-kind conference featuring insightful and inspiring keynotes, dynamic panel discussions and immersive sessions to help you advance your career while effecting change in your organization.

Here is a small sampling of seminars and workshops.

- \textbf{Professional Headshot Session}
- \textbf{How Does Congress Really Work?}
- \textbf{Come Fly With Me - A Hands-on Drone Piloting Experience}
- \textbf{Discover Yourself and Your Unique Brand}
- \textbf{Engineering Licensure: From Point A to PE}
- \textbf{Exploring the Entrepreneurship Ecosystem}
- \textbf{Keynote: How to Become an Exceptional Leader: Invest Your Time in What Matters}
- \textbf{Diversity and Inclusion: Why it is Important to YOU!}
- \textbf{Coffee and the Meaning of "Why"}
- \textbf{Soft Skills That Have an Immediate Impact on Careers}
- \textbf{Order Out of Chaos - Group Management Techniques}
- \textbf{Keynote: The Power of Influence}
- \textbf{Fireside Chat with Sonita Lontoh, HP}
- \textbf{Embracing Change}
I strongly recommend EVO20 next year’s conference and will be looking to help a R5 **IEEE Houston Section** Student Branch member to attend. I believe it will give them support, network, and education experiences to propel their career. The conference is beneficial and open to Student, Senior, Fellow, and public attendees. I learned a few new things myself that I will put into practice moving forward.

**Are you ready for the Evolution Of You in EVO20?**

Article submitted by: Christopher Sanderson, IEEE R5 South Area Chair, IEEE-USA Career & Professional Development Committee, Houston Section Vice-Chair, IEEE Admission and Advancement Committee
On Friday, July 26, 2019 IEEE TryEngineering Summer Institute South location at Texas A&M University hosted over 300 students from around the world. At the TryEngineering Summer Institute (TESI) program, 8th – 12th grade school students explored various engineering fields, such as Electronics, Electrical, Civil, Mechanical, and Aerospace. The TESI program also facilitated an opportunity for students to meet working engineers and experience VIP tours of engineering companies and centers.

IEEE R5 South Area Chair Christopher Sanderson, Account Manager with HV Sales Company, Inc, along with IEEE R5 Director Director Bob Shapiro, a Land Mobile Radio Consultant with RCS Wireless Consulting; facilitated What Are Standards? seminar. The What Are Standards? seminar take a historical look through time in understanding where measurements and standards we use today had its early beginnings.

Many were surprise to learn about the history of standards and the number of IEEE standards around the world in a number of various industries.

IEEE has an active portfolio of nearly 1,300 standards and projects under development, IEEE is a leading developer of industry standards in a broad range of technologies that drive the functionality, capabilities, and interoperability of products and services, transforming how people live, work, and communicate.

Part of the high interest from students was the historical significant of standards and how standards are adopted an applied all over the world in a number of different applications and technologies.

With collaborative thought leaders in more than 160 countries, IEEE-Standards Association is a leading consensus-building organization that enables the creation and expansion of international markets, and helps protect health and public safety.

“It’s a great time to be an IEEE member volunteer. Knowing that I’m making a difference in the lives of future STEM young professionals.” Says Christopher Sanderson, IEEE R5 South Area Chair.
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The highlight of the program had to be the panel sessions with today’s STEM professionals. IEEE R5 Director Bob Shapiro, is a Land Mobile Radio Consultant with RCS Wireless Consulting; Ft.Worth Section member Derrick Webster, is an Electricity Delivery Associate at Oncor Energy; Lamar University Student Branch member James Epkins, IEEE Student Branch Young Professional; Houston Section member Sean White EIT, is an Assistant Instrument & Controls Engineer at Burns & McDonnell; and Houston Section member Moriah Hargove Anders, is a Patent Agent at Fletcher Yoder Law Firm; and the panel discussion was co-facilitated by R5 South Area Chair Christopher Sanderson, Account Manager with HV Sales Company, Inc.

During this time the panelists spoke on their individual experiences as students and now professionals in their engineering fields. Questions from the TESI students ranged from why did you choose your STEM field in Engineering? To what were some of the obstacles you experienced? The panel shared a variety of experiences on why they chose engineering as a profession, why they chose their college? To how much they enjoy their profession? They were truthful and passionate with their experiences. You could see that these panelists wanted to share with these students not just choose STEM as a profession but to make the right choices in their personal lives along the way. There was a fountain of advice given about classes, study habits, workplace culture, and placing the right people around you. As you can imagine these were interesting and engaging questions. It was a great opportunity for these young future professionals to see how broad the field STEM is and how STEM majors come from all different walks of life and the diverse opportunities available.
The TESI program give the opportunity to show how engineering can make a difference in the way our world can work better together. Students are able to get a taste of engineering before college, alongside their peers from other schools from around the world. It is also a great chance for educators to learn how to tailor their lesson plans to increase their student’s interest in engineering and technology careers.

For some of the panelist we had an opportunity to relive our campus cafeteria experiences. Some things don’t change especially when it comes to menu selection. We have to look at including Texas A&M Universities BBQ science class into the program next year. For me it will be a commitment for next year’s class and panelist to enjoy some real good Texas BBQ. I will be looking to my fellow IEEE colleagues for help.

Dawna Schultz, the Senior STEM Outreach Education Manager, and her team did an excellent job in facilitating the TESI South program. I’m often reminded by a quote… "Volunteers do not necessarily have the time; they just have the heart." by Elizabeth Andrew

Article by James Epkins, Lamar University Student Branch Young Professional and contributing volunteer to Houston Section Newsletter team.

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Join a community of over 422,000 technology and engineering professionals united by a common desire to continuously learn, interact, collaborate, and innovate. Get the resources and opportunities you need to keep on top of changes in technology, get involved in standards development, network with other professionals in your local area or within a specific technical interest, and mentor the next generation of engineers and technologists.
On Tuesday, July 9, 2019 Christopher Sanderson the R5 South Area Chair and VoLT 17’ graduated facilitated an IEEE R5 VoLT Program Informational webinar with about 49 registered attendees. The **Center for Leadership Excellence (CLE)** is designed to serve the multiple and diverse range of IEEE user communities. From volunteers, non-volunteers to students, members, and conference organizers, the site offers a simpler and effective learning experience.

Although there were some technical difficulties at the beginning, there were lots of engaging questions centered around additional volunteer and career training options available. Many were surprised to learn of the shorter Track 1 Session compared to years past.

To learn more about the VoLT Program see additional details below.

IEEE volunteers who have 2+ years of experience volunteering in their local units and have not held a Section Chair position, are highly encouraged to participate in VoLT. The program has two tracks.

**Track 1** – Each year, IEEE volunteers are invited to participate in Track 1, which covers the core organizational units of IEEE and focuses on the foundation knowledge of the organization. These **pre-requisite** courses are available to all IEEE volunteers in the Center for Leadership Excellence (CLE) web site.

**Track 2** – Volunteers who complete Track 1 above can apply for consideration for Track 2 of the program. Track 2 will last about three months (Sep-Dec) and consists of weekly live webinars focused on leadership related topics. Participation in Track 2 will be determined by the MGA Training Committee based on predefined criteria. Applicants will need an endorsement from a volunteer leader within their area.

**Region 5** has had over 12 Graduates from the program since 2013 and many of which have gone on to be distinguished volunteers at the Section and Regional levels. Many of which have also been nominated and awarded for their outstanding volunteer efforts. This helps highlights the value of the VoLT program and how it can help improve your volunteer and professional experiences.

**Article submitted by:** Christopher Sanderson, IEEE R5 South Area Chair, IEEE-USA Career & Professional Development Committee, Houston Section Vice-Chair, IEEE Admission and Advancement Committee
Lamar University Motivation Seminar: Right on Time Advise

Not a time short of anxieties: finals, what’s next after college, the job market, adulating, credit scores, to name a few. Those in colleague know getting advice in these and many other topics from individuals ahead in the professional game is always a very welcome privilege.

In a seminar hosted by the IEEE Student Branch at Lamar University, keynote speaker Tyler Troutman shared motivational words and valuable life advise with students, right on time for the end of the spring semester. The seminar was delivered at the Lamar University Cherry Engineering Building on May 1, 2019.

The words of the keynote speaker were complemented by those of Mr. Andreas Fornwald, a renown international corporate executive and IEEE Houston Section member, who provided further encouragement and wisdom for attendees. "Stay positive and work hard, don't give up on the goals you've set for yourself. Be open to criticism and keep learning. This beliefs will take you far from where you are here in Texas but around the world."
An IEEE Student Branch provides opportunities to meet and learn from fellow IEEE Student and Graduate Student Members and engage with professional IEEE members locally. An active IEEE Student Branch can be one of the most positive elements of your academic career, offering programs, activities, and professional networking opportunities that build critical skills outside of the classroom. IEEE currently has Student Branches at thousands of universities and colleges in hundreds of countries throughout the world.

A special thanks goes out to Mr. Ryan Hobbs, who has turned over the mission and responsibilities over to the new incoming Student Branch leadership just in time for the start of his internship with Black Pearl Technology.

Article by Fabian Pineda Houston Section Newsletter team

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IEEE HOU Sec. has been in existence for more than 90 years serving the greater metro Houston Area. We serves more than 4,000 higher grade members and over 300 student members living and working throughout the greater Metro Houston area. The Houston Section is one of 26 sections in Region 5 with 15 Society Chapters and Affinity Groups and 5 Student Branch Chapters. The Section provides planning and funding support to assure Chapters have vibrant programs to support members’ careers and meet the IEEE mission of Advancing Technology for Humanity.
This past meeting went well! Christopher Sanderson spoke to us about updates related to the IEEE 1584 Standard, and dialogued with members regarding their experience with changes. Looking forward to the next meeting on June 18th! #IEEE #IEEPEPS #FortWorth #IEEEHouston #IEEE1584
THE INSTITUTE | IEEE Senior Member Christopher Sanderson has worked and consulted with companies such as Schneider Electric, formerly Square D, General Electric, and Siemens. He is also a U.S. Army veteran. Today, he is an account manager for HV Sales Inc., which provides marketing services to manufacturers of electrical equipment. Sanderson is an IEEE Eta Kappa Nu Honor Society member. He is currently serving as the IEEE Region 5 South Area chair and IEEE Houston Section vice chair. Sanderson is the 2019 recipient of the IEEE Region 5 Jim Leonard Outstanding Member Award.

What are you currently reading?
Black Pioneers of Science and Invention by Louis Haber. This is an informative and enjoyable read and a perceptive account of the lives of 14 gifted innovators who have played important roles in scientific and industrial progress. All of the profiled individuals were either unknown or had been put in the halls of obscurity. The achievements of Benjamin Banneker, George Washington Carver, Granville T. Woods, and others have made tasks easier, saved countless lives, and in many cases, altered the course of history. It's important for me to share these and other inventions that have contributed to humanity with my kids and students at community schools, were I talk about science, technology, engineering, and math and IEEE.

What invention has most inspired you?
Otis Boykin’s artificial heart pacemaker control unit. During the 1980s, when I was a kid, there was a lot of news about the artificial heart and how it helped prolong the life of patients whose hearts were failing. I was surprised to learn about the inventor, whose key invention was a control unit for the artificial cardiac pacemaker. He died of heart failure in 1982. As a kid, I thought how he died was another weird fact, but now I see his entire body of work as inspirational. I learned that he had more than 25 patents, and his inventions not only helped prolong life but also contributed to other consumer and military applications.

What recent movies have you enjoyed the most?
Black Panther. To see one of my favorite comic book characters come to life on the big screen was reflective and inspirational. To see its success at the box office was surprising. I only wish I would have kept some of my old Black Panther comic books. The technologies developed in Wakanda, the fictional country Black Panther is from, and the dilemma its citizens were facing of whether the technology should be shared with the rest of the world reminded me of IEEE’s motto, Advancing Technology for Humanity. For me, the situation in Black Panther parallels some of the challenges of today where technology can be used for both good and evil, depending on who is using it.
What about current technology worries you?
There are two areas of technology that worry me: the lack of U.S. privacy laws compared to those from the European General Data Protection Regulation, and artificial intelligence (AI). I recently participated in the IEEE-USA 2019 Congressional Visit Day (CVD) centered on science, engineering and technology (SET). The objective of CVD SET is to raise awareness of the long-term importance of science, engineering, and technology to the nation through face-to-face meetings with members of Congress, congressional staff, key administration officials, and other decision-makers.

One of the policy concerns shared by the delegates was centered around protecting the digital privacy rights of American citizens and the importance of sensible AI technology. These are challenging and evolving policy concerns that Congress, companies, and citizens of the United States have to educate ourselves about, not only to understand but to also realize the dangers AI can cause to our fundamental beliefs of democracy.

What in recent years has surprised you the most about technology?
The pace of technology disruption and the lack or limited laws to manage it. During my 2019 CVD, I was pleased to learn that IEEE is viewed as a trusted and respected organization on Capitol Hill. Many of our IEEE subject matter experts are available to help Congress make informed and sensible policies and laws.

What was the best advice anyone has given you?
“If you are not a part of the solution, you are a part of the problem,” a famous quote by Eldridge Cleaver, a writer and political activist. I’ve tried to live my life being the solution and not part of the problem. This is the motto and advice I give to our current and future engineering community. You can choose to be part of the problem or the solution to it. I chose to be the latter.

How many unread emails are in your inbox?
1,200 junk mail or job alert notices. It’s unfortunate that you have to join a mailing list just to read or download an interesting article or view a picture. I only wish that the job alerts would lead to that ultimate dream job. I’m not sure how much credence I can give to some of the alerts, but it’s interesting to see what positions are available and the qualifications they are looking for.

Continued to page 3
Ten on Tech: Spotlight on Christopher Sanderson

What has been or is your favorite equation or concept in engineering, and why?
My favorite Greek letter would be $\alpha$ (Alpha), in English, the noun “alpha” is used as a synonym for “beginning,” or “first (in a series), reflecting its Greek roots.
My favorite equation would be a normal distribution equation used by fellow Six Sigma practitioners and statisticians alike. In probability theory, a normal (or Gaussian or Gauss or Laplace–Gauss) distribution is a common continuous probability distribution. Normal distributions are important in statistics and are often used in the natural and social sciences to represent real-valued random variables whose distributions are not known.
In layman’s terms, does your data represent a normal distribution curve that can be improved or is there too much variability in your data and your process is not stable. Nothing can be improved upon unless it’s stable and you’re able to understand what might be influencing the results.

What has been an important life lesson for you?
I’ve learned how important mentoring the next generation of engineers is. At this time in my life I want to guide students by sharing some of the lessons I’ve learned along my journey. I reflect back on the beginning of my engineering career and remember those mentors who guided me through some of the best and most challenging moments.

What should IEEE be (more) involved in?
IEEE needs to be a professional and humanitarian organization at the local community level. This could mean different things depending on the community. Some examples of how IEEE could get involved are:
• Creating IEEE technology badges for Boy Scouts of America and Girl Scouts of the USA
• Writing career development certification programs (for example, engineer in training, professional engineer, and the National Electrical Code.) with local subject matter experts facilitating the online program
• Look into offering dual memberships with other engineering societies such as the National Society of Black Engineers and the Society of Hispanic Professional Engineers
• Offering formal mentor/mentee online and in-person programs. The program would have some measurable mentor/mentee goals and results that would lead to awarding IEEE reward points and badges.
It’s been reported that 83% of companies express that it’s important to develop leaders at all levels. In response to this, on May 5, 2019, Houston Section Secretary, Moriah Hargrove Anders, led a group of about fifteen student IEEE leaders through the Houston Section’s first annual Student Branch Leadership Training.

Prairie View A&M University Representatives from Texas A&M University, University of Houston, and Prairie View A&M University were all in attendance. Christopher Sanderson, Houston Section Vice-Chair and Region 5 South Area Chair, also supported the training and provided key insights during the presentation. The training was hosted in the Prairie View A&M Library and lasted about 2.5 hours.

Lots of good content was covered and included Region 5 organizational charts, an explanation of student branch content, membership benefits, marketing tips, where to find additional officer training, and so on. Funding sources and funding advice was also provided by the Houston Section to the Student Branches.

Key Takeaways:

1. Have your Chair or Student Branch Counselor order the MD kit: https://mga.ieee.org/membership-development/membership-development-kits. Only one order per student branch per year
3. Submit your Student Branch plan https://sbr.vtools.ieee.org/ & develop a calendar of events for the whole year. Submit appropriate events into vTools events. Advertise the whole calendar of events during your recruitment events so that members can block off their calendars.

If you are a student leader and would like a copy of the material shared during the presentation that include these takeaways and other good information, please reach out to the Houston Section Secretary or Vice-Chair to obtain a copy.

Huge thank you to Dr. Cui and Prairie View A&M for hosting the training on behalf of IEEE. The Houston Section appreciates the support of PVAMU for our initiatives.

Article by Moriah Hargrove Anders Houston Section Secretary
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