

THE Signal

Bimonthly Publication of the Society of Broadcast Engineers



The Association for
Broadcast and
Multimedia Professionals

www.sbe.org

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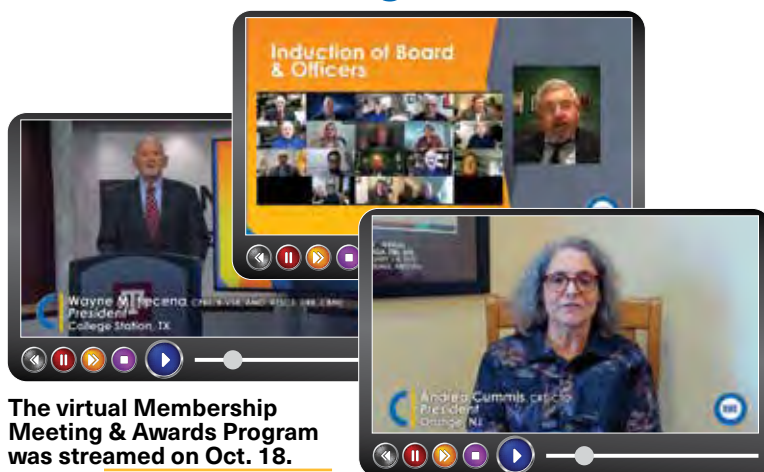
SBE Membership Meeting and Awards Program Presented Virtually

On Oct. 18, the SBE held its second virtual Membership Meeting and Award Presentation (MMAP). Originally planned to be held in Las Vegas during the delayed 2021 NAB Show, the SBE shifted the event to be presented online. The SBE Board of Directors met on Oct. 11.

The MMAP included two portions: The annual fall Membership Meeting, which was followed by the presentation of the SBE Awards. The Membership Meeting, led by outgoing SBE President Wayne Pecena, provided an update on SBE programs and activities. It was concluded with the swearing in of the officers and directors elected during the SBE election in August. The Awards Program portion was led by newly inducted SBE President Andrea Cummis.

The SBE thanks the MMAP sponsors, who are listed on page 9 of this issue. The MMAP was presented on Oct. 18 as the October SBE WEBxtra. The replay of the MMAP is available on the SBE YouTube Channel (sbe.org/youtube).

Andrea Cummis was sworn in for her first one-year term as SBE



The virtual Membership Meeting & Awards Program was streamed on Oct. 18.

see [MMAP](#), p. 9

Board of Directors Actions from October Meeting

With the 2021 NAB Show being cancelled, and therefore the SBE National Meeting in-person event being cancelled, the fall SBE Board of Directors meeting was held virtually on Oct 11. Among the business discussed at the meeting are updates on various programs, activities and projects of the society. Three items presented are of interest to SBE members.

Chris Imlay announced earlier in 2021 that he is retiring from his position as general counsel of the SBE. The search for someone to take on the communications counsel duties for the society has begun. The position opening has been listed and candidates have applied. At the end of October, two initial candidates had been interviewed.

While Imlay's goal was to be free of his duties by Dec. 31,

2021, he has assured the Board of Directors that he will stay on as long as necessary to ensure a smooth transition with whomever is retained.

Frequency Coordination Guidelines

The SBE National Frequency Coordination Committee developed suggested recommended standards and practices as a guide to all local SBE and SBE-affiliated local market frequency coordinators. The document, last updated in 2017, describes the processes and limitations of the role of the local SBE frequency coordinator to, somewhat informally, maximize the use of Rule Parts 74, 76 and 101 frequency allocations by the Federal Communications Commission Rules and Regulations for Broadcast Auxiliary use.

With an increased demand on BAS frequencies, including coordination with the Department of Defense, the Frequency Coordination Committee has been tasked with evaluating and revising the frequency coordination guidelines and roles of the local co-

ordinators. The committee's findings will be reported to the SBE Executive Committee at its meeting in January.

Updates to SBE By-laws

The SBE operates under a set of by-laws that establish the governing rules of the organization. The by-laws are reviewed periodically to ensure they are up-to-date and to

see [BOARD MEETING](#), p. 6



Imlay


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December 2021

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1 ▲ Maine Connecticut	2	3	4
5	6	7	8	9	10	11
12	Contact Nick for COP quote Nick@qcomm.tv		15	16	17	18
19			23	24	25	
26 	27	28	29	30	31 	

January 2022

Sun	Mon	Tue	Wed	Thu	Fri	Sat
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9	10	11	12	13	14	15
16	17 	18	19	20	21	22
23	24	25	Contact Phil & Schedule CV Phil@qcomm.tv		28	29
30	31					

February 2022

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27	28					



March 2022

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13 	14	15	16	17 	18	19
20	21	22 	23	24	25	26
27	28	29	30	31		

Upcoming Events:

-  REPACK Deadline for Phases 6-10
-  CES 2022
-  Nate Unite 2022
-  Great Lakes Media Show

Broadcast (AM/FM) Radio License renewal/expiration dates by STATE:

-  Renewals must be filed
-  License expires



Repack deadline seems far away now, but it won't once the holidays are over. Connect with us and learn how we can help!
Nick@qcomm.tv

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SBE National Office
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2021-2022 Committee Chairs Named

At the SBE Membership Meeting & Awards Program on Oct. 18, the 2021-2022 officers and directors were sworn in to begin their new terms. (The results of the SBE election were announced in August.) SBE President Andrea Cummis, CBT, CTO, also announced her committee chair appointments for the coming year, which were reviewed and approved by the Board of Directors at its meeting on Oct. 11. The committee chair assignments follow.

President Cummis also appointed two directors to serve on the SBE Executive Committee, which also includes all the officers and the past president. Roswell Clark and Kirk Harnack were appointed and approved by the Board, and they join Cummis, Vice President Ted Hand, Secretary Kevin Trueblood, Treasurer Jason Ornellas, and Immediate Past President Wayne Pecena.

Contact information for the SBE Board of Directors and Officers is noted in the masthead of *The Signal* (to the left) and is posted on the SBE website under the About tab.

Committee	Chair
Awards	Tom McGinley
By-Laws	Kevin Trueblood
Certification	Ralph Hogan
Chapter Liaison	Jeff Juniet
Education	Geary Morrill
Electronic Communications	Dan Whealy
Fellowship	Troy Pennington
Finance	Roswell Clark
Frequency Coordination	Ted Hand
Government Relations	Ched Keiler
International	Zhulieta Ibisheva
Membership	Steve Brown
Mentoring	Chris Tarr
Nominations	Roz Clark
Publications	Jason Ornellas
Social Networking	Kirk Harnack
Sustaining Membership	Fred Willard
Technologies	Shane Toven

Congratulations

With the completion of his two terms as SBE president, Wayne Pecena, like other SBE presidents before him, received a plaque with a gavel and a bound set of *The Signal* issues from his term to commemorate his service.

Congratulations, Wayne!



Certification Question

What is the limiting factor when using zener diodes for voltage regulation?

Answer on page 6

- A. The current capability of the power transformer
- B. The voltage drop across the input filter capacitor
- C. The power dissipation of the zener diode
- D. The voltage rating of the zener diode



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LETTER FROM THE PRESIDENT

By Andrea Cummis, CBT, CTO
SBE President
acummis@sbe.org

To a New Year and a New Term

I'm honored to be elected to the prestigious position of president of the Society of Broadcast Engineers. I'm particularly excited to be the first woman to serve in this role, and I see a key part of my mandate to lead the Society to achieve greater diversity. Having served on the SBE Board of Directors for nearly 20 years, I've had the unique privilege of working with the Society to adapt to the many changes in the digital broadcast landscape.

We've also had many changes in the SBE over the last year. John Poray, the executive director since 1992, retired last year, and Jim Ragsdale became the new executive director. John had been with the SBE so long that many of us don't remember a time before John oversaw the operation of the organization.

Recently, Chris Imlay, who has worked with the SBE since 1980, and has been the SBE's general counsel since 1993, announced his plans for retirement at the end of this year, so we have started a search for his replacement. It feels like the end of an era with these two important people retiring, and we are grateful for their dedication, industry expertise and community leadership over so many decades. They hold a vast amount of the Society's institutional knowledge, and as such, we plan to ensure that the rich history of the organization is preserved and accessible for decision-making and information going forward. This is yet another key indication that the organization is at an important inflection point.



Andrea is sworn in during the Membership Meeting and Awards Program held in October.

Business Unusual As Usual

Clearly, over the past two years, Covid-19 interrupted business as usual and placed critical, real-time demands and solutions for implementing decentralized and remote operations, new processes and requirements. Our members rose to the task, and there are many success stories and lessons to be learned and shared among us. The need to enable live, remote productions in a seamless, real-time broadcast is likely to be the norm, not the exception, going forward. One of the key initiatives in the coming year is to enable members to share best practices and experiences on how to optimize design, operate systems and facilities in order to satisfy these new requirements.

In the next few years, the media distribution landscape will undergo rapid digital transformation. We're entering a new era of converging, emerging technologies: 5G, Web 3.0, ATSC 3.0, SMPTE 2110, UHD, Next-Gen TV, virtual reality, augmented reality, cloud-native, edge micro services, cyber security, and blockchain technologies. The role of broadcast engineers will become increasing-

ly more important, complex and valuable to the organizations that we serve. Our goal will be to provide technical information and education, as well as facilitate live events, webinars and group messaging feeds where we can conduct discussions on a wide range of areas, platforms and services, as well as requirements, plans, tests, POCs and implementations.

We will look to expand the roster of programs for new technology certifications, which already includes the ATSC 3.0 Specialist certification. I'd like to encourage members to be proactive in introducing companies that members are working with to the Society, and collaborate in flexible working groups to evaluate new platforms, products and services and share expert opinions with the greater SBE community.

It is incumbent upon us as an organization to widen the scope of what it means to be a broadcast engineer. In this way, we can appeal to a wider range of young and more diverse professionals. The SBE Board of Directors is working on creating a new strategic planning process that will include a diverse group of members from all over the country. I'd like to see the creation of more internships with broadcast and media companies, and programs that allow our members to speak at and participate in programs at universities.

I'm excited about growing the depth and breadth of the SBE organization and its expertise and relevance to making more informed decisions on broadcast and media technologies and operations. I hope to facilitate active discussions among our members in order to build a more engaged, connected community to address the challenges of the 2022 roadmap together.

2022 SBE National Meeting Set to Return to Syracuse

The SBE has set plans to hold the 2022 National Meeting in conjunction with the SBE Chapter 22 Broadcast & Technology Expo, Sept. 29, at the Ramada by Wyndham in Liverpool, NY. The SBE National Meeting events will be held Sept. 28-29. The Expo is the largest regional tradeshow in the northeast that features technical equipment, products and services for broadcasting and media.

The SBE National Meeting begins in the afternoon on Sept. 28 with the fall meeting of the national SBE Certification Committee. The fall meeting of the SBE Board of Directors will take place that evening and is open to all members to attend. The events planned for Sept. 29 include the annual SBE Fellows Breakfast, honoring all SBE Fellow members, the SBE Membership Meeting and the SBE Awards Dinner. The Awards Dinner will recognize the achievements of the 2022 award recipients and will feature a guest speaker. The SBE will also recognize any new Fellow members at the dinner.

The Ramada by Wyndham Liverpool is near the Syracuse airport. Information about the Expo is available at sbe22.org/2022-expo. Attendee registration will open in the coming months.

EDUCATION UPDATE

By Geary Morrill, CPBE, AMD, CBNE
Chair, SBE Education Committee
gmorrill@sbe.org

A Review To Then Look Forward

As we put this year in the rearview mirror, I thought it would be helpful to reflect on what SBE members have received from an educational perspective, and take a look at what lies ahead in the year to come.

At the top of our 2021 list would be the launch of the Technical Professional Training program (TPT), which has been well received in several quarters. We're approaching three dozen applicants, and initial feedback from these charter participants has been overwhelmingly positive. Additionally, we've heard from several state broadcaster associations interested in utilizing and supporting this program to attract new talent to the profession. I'm sure you've read that enrollment in the program is naturally creating a need for additional members to function in a mentor capacity. I encourage you to consider becoming a mentor in 2022. It's rewarding to see the blossoming of a new engineer and realizing you've played an important part in making that happen.

SBE Education Director Cathy Orosz has once again done a masterful job of ensuring you receive good value from your SBE MemberPlus membership, working tirelessly to coordinate two new webinar offerings each month. The feedback attendees provide during their evaluations along with the input from the annual SBE Compensation Survey has brought ideas about new subjects to the table, and many of those have resulted in new subject matter or updated content. Regarding the latter, we thank Immediate Past President Wayne Pecena for refreshing the eight-part IP series with new content. This part of our profession is going through rapidly evolving change, and the updates reflect the latest developments and concerns.

Your feedback also brought about the addition of the SIP series of webinars providing a good understanding of this IP-centric telephone technology in use at more and more facilities. With the impending demise of POTS availability in many locales, further sharpening your SIP skills can make you a hero for your facilities' users.

Being able to schedule gatherings once again has afforded the opportunity to resume in-person Ennes Workshops, with the first 2021 session occurring in Harrisburg, PA, in August. The October Georgia GABCON was the venue for the second Ennes this year. Unfortunately, the cancellation of the 2021 NAB Show this fall also postponed plans for the Las Vegas Ennes Workshop until April 2022. Looking ahead into the new year, there are three workshops already on the calendar (South Carolina, Michigan, and Louisiana), with scheduling interest coming from Texas, Mississippi, and Minnesota. If you're part of a group wishing to schedule an Ennes workshop in 2022, please reach out to Cathy Orosz to start the process soon.

For more information on any SBE education program click the Education tab at sbe.org, or contact Education Director Cathy Orosz at the SBE National Office at 317-846-9000 or corosz@sbe.org.

What Else Lies Ahead?

One area currently in process is improvement/upgrading of the webinar delivery platform. While current applications have served well for a number of years, there have been issues from time to time with functionality and performance reported by attendees and presenters alike that can be best addressed by moving to a more comprehensive suite of products. This change may not be immediately apparent to webinar attendees, but the overall product quality improvement will result in a more satisfying user experience. A large part of this conversion will be the migration and conversion of the substantial existing SBE webinar library to a new archive, which will be a one-time process. Our goal will be to keep existing content available to users during the conversion process.

As always, we want to know what webinar topics would be of the most value to you. You need not wait to participate in the next compensation survey or post-webinar survey to share your thoughts. Drop me a line anytime: gmorrill@sbe.org. Here's to your success in 2022!



In Memoriam

Richard Cupka, Sr.
Member #16826
1935 - 2021

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CERTIFICATION UPDATE

By Megan Clappe
SBE Certification Director
mclappe@sbe.org

The Next Generation of CertPreview

In 2009, the SBE Certification Committee took a major step to contract a company to create an updated version of SBE CertPreview. Early versions utilized volunteer efforts to create the software, previously supplied via floppy disc and then CD-ROM. The 2009 version was created so that the Certification Committee could update the sample questions, which previously was a difficult task with the older versions.

The 2009 version is available as a download, although a CD option is still available. As time and technology progressed, the SBE CertPreview program is seeing limitations that did not exist when it was first created.

Earlier in 2021, the Ennes Educational Foundation Trust allocated funds to the Certification Committee to develop a new CertPreview program. The committee contracted the firm of Stevens and Stevens to create this program. The development work is underway, and the expected release date is targeted for late 2022.

What's in the new version to look forward to? The major difference is that CertPreview will be web-based. That means no more downloads or CDs to install. Users will be able to login on any computer or device and take the sample test whenever and wherever a connection is available. The primary advantage to users is that any updates to the sample test questions can be made in real-time. As technology advances, so will the CertPreview questions. Logging in will

always yield the most recent question pool. In previous versions, users had to download and reinstall the program to access questions updates.



Many features of the current version will be carried over. For example, there will still be a field to note the information source, such as a book, website or webinar. There is a field to provide a brief explanation as to why the answer is correct. These fields exist in the current version, but the data has not been provided throughout the sample questions. Like the current version, you will be able to take multiple sample tests, and the questions will change and shuffle for each new version. Users will be able to revisit previous practice exams and questions.

With CertPreview being used in the SBE Technical Professional Training and Mentor Programs, these features will allow mentors

and mentees to review areas where an individual needs some help to prepare to take an SBE certification exam.

The National Certification Committee has almost 100 percent handled writing and updating all of the exam, CertPreview and essay questions. Not long ago, the committee issued a call to action to SBE members that still stands today: Submit question suggestions to the committee for review and inclusion to the SBE exams and CertPreview. It's likely you have thought of suitable questions or concepts that could be part of an SBE certification exam.

When submitting questions, prepare them so the answers are multiple-choice. Ideally, a reference explanation can be provided from a book, webinar or website. If you hold SBE certification, you can count recertification credit for submitting exam questions to the Certification Committee. Send your questions to me. My contact info is at the top of the page.

More info on SBE CertPreview
sbe.org/certification/sbe-certpreview/



Answer from page 3

The answer is C

Zener diodes are widely used as voltage references and as shunt regulators to regulate the voltage across small circuits. When connected in parallel with a variable voltage source so that it is reverse biased, a zener diode conducts when the voltage reaches the diode's reverse breakdown voltage.

Now Scheduling 2022 SBE Ennes Workshops

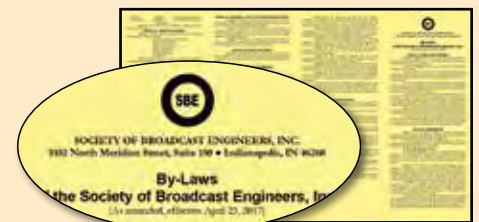
As in-person events return, the SBE is ready to help your chapter plan to host an SBE Ennes Workshop in your area. SBE Ennes Workshops, presented by the SBE and the Ennes Educational Foundation Trust, are one-day educational programs for broadcast engineers. These programs feature multiple topics and speakers that provide the nuts-and-bolts information broadcast engineers need.

The cost to host an event is typically shared through participant registration fees, sponsorships and chapter support. Some state broadcaster associations have also supported these programs financially, either as a part of one of their events or as a stand-alone event.

Get more info at sbe.org/ennes_workshop or contact SBE Education Director Cathy Orosz, at 317-846-9000 or corosz@sbe.org.

BOARD MEETING, from p. 1

propose and adopt any changes needed as the Society, applicable laws and regulations governing non-profit corporations, and technology evolve. At the October meeting, several sections of the SBE By-laws were considered for review. The proposals were prepared by the SBE By-laws Committee, which was chaired by Ched Keiler, CPBE, 8-VSB, CBNE.



Three changes were proposed to the Board. The changes address adding teleconferencing to the methods of holding board meetings, amending the signatures required when signing checks for society expenses and increasing the frequency of conducting a financial audit, and the process to amend the by-laws and extend the member notification window and method of any changes.

The full text of the changes follows on page 7.

SBE Certification Achievements

CONGRATULATIONS



LIFE CERTIFICATION	<p>Certified Broadcast Radio Engineer (CBRE) David Maxson, Medfield, MA - Chapter 11</p> <p>Certified Broadcast Television Engineer (CBTE) Charles Zarriello, Voorheesville, NY - Chapter 58</p> <p>Certified Broadcast Networking Technologist (CBNT) Brian James, Birmingham, AL - Chapter 68</p>	<p>Certified Professional Broadcast Engineers and Certified Senior Broadcast Engineers who have maintained SBE certification continuously for 20 years, are at least 59½ years old and are current members of the SBE may be granted Life Certification if so requested. All certified who have retired from regular full-time employment and are at least 59½ years old may be granted Life Certification if they so request. If the request is approved, the person will continue in his/her current level of certification for life.</p>	
AUGUST EXAMS	<p>Certified Broadcast Networking Engineer (CBNE) Nathan Miller, Nashville, IN - Chapter 25</p>	<p>Got your SBE Certification pin? sbe.org/pins</p>	
SPECIAL PROCTORED EXAMS	<p>Certified Broadcast Technologist (CBT) Thomas Hurley, Pittsburgh, PA</p>		
SBE CERTIFIED SCHOOL COURSE COMPLETION	<p>Certified Broadcast Technologist (CBT) <i>DINFOS</i> Vincent Worland II, Fort Meade, MD - Chapter 132</p>		
CERTIFIED BY LICENSE	<p>Certified Broadcast Technologist (CBT) Eva Hern, Kemah, TX - Chapter 105</p>		
CERTIFIED RADIO OPERATOR (CRO)	<p>Richard Parker, Tucson, AZ <i>Cedar Ridge High School</i> Caiden Anderson Parker Broadway James Cleveland Craig Combee Zelen Elwart</p>	<p><i>Cedar Ridge High School (cont.)</i> Seth Fuller Joseph Granier Jeffrey Hackworth Lane Jackson Jackson Holley Ayden Lovell Landin Majors</p>	<p><i>Cedar Ridge High School (cont.)</i> Isaac Olivares Brant Ozbun Jerrit Pectol Daniel Shelton Sebastian Spradling Kira Valezquez</p>
RECERTIFICATION	<p>Applicants completed the recertification process either by re-examination, point verification through the local chapters and national Certification Committee approval and/or met the service requirement.</p>	<p>Certified Broadcast Technologist (CBT) Elizabeth Delaquess, Lincoln, NE - Chapter 74 Robert Dunn, River Ridge, LA - Chapter 72 David Festa, Wethersfield, CT - Chapter 14 Peter Fountain, Littleton, CO - Chapter 48 Chris Waldrup, Tracy City, TN - Chapter 103</p>	<p>Certified Radio Operator (CRO) Elizabeth Delaquess, Lincoln, NE - Chapter 74 David Pelz, Yucaipa, CA</p>

SBE By-Laws Changes Adopted by the Board of Directors at its October 2021 Meeting

Deletions are ~~struck through~~. Additions are in ***bold italic***.

Allowing Electronic Meeting Participation

Article III, Add Section 15

The President or, in her or his absence, the Vice President, shall be able to conduct such meetings as described within these Bylaws, either in person or via Video Teleconference. Such meetings conducted by Video Teleconference shall constitute a meeting in person. Both in-person and Video Teleconference attendees shall count towards a quorum for the transaction of business, and a vote of a majority of those present at a meeting at which a quorum is present shall constitute the act of the entire Board of Directors. For the purposes discussed within these By-Laws, the term "Video Teleconference" shall mean an electronic process in which all Directors and Officers are able to hear each other speak at all times during the meeting, and at which Directors and Officers shall be able to cast a vote with both a simultaneous oral and visual presence to the presiding officer.

Signatures on Checks

Article IV, Section 8

The Treasurer shall supervise all accounts and moneys of the Society, under the direction

of the Board of Directors and shall establish such accounts as shall be designated by the Board of Directors. He shall have charge of all funds of the Society, and shall be responsible for the prompt collection of dues from the membership. ~~All checks shall require at least two signatures. All expenditures over three thousand, five hundred dollars (\$3,500) to be made by the Executive Director shall require the prior approval in writing or e-mail by the Treasurer, or in the absence or unavailability of the Treasurer, by an Officer of the Society.~~ Those authorized to sign checks and to make expenditures on behalf of the Society shall be nominated by resolution of the Board of Directors. A financial report shall be distributed, by publication to the members of the Board of Directors and, upon written request, made available to Chapter Chairpersons on an annual basis. An audit will be performed by an independent auditor at least every two years and at the time a new Treasurer takes office annually. This audit will include all moneys administered by the Society.

Amending By-Laws and Member Notification of Changes

Article IX, Section 1

Proposals for amendment of these By-Laws may be made as follows: By written resolution signed by at least 25 voting members of the Society in good standing; by motion of any ~~three~~ ***two*** Directors, or of the Executive Committee, or of any officer of the Society, at any regularly scheduled

meeting of the Board. Such resolutions and motions shall be submitted to counsel for approval as to legality. Thereafter, such proposed amendments will become effective after two-thirds vote of the entire Board of Directors.

Such Board vote shall be taken on such proposed amendments within 180 days of the submission of the resolution or motion to the Board.

~~The By-Laws may also be amended by a majority vote of the membership at large. A full membership vote shall be held within 120 days following the first Board of Directors meeting after 5% of all chapter chairpersons, representing the majority of their chapter members in good standing, submit a proposed amendment, addition or deletion, and petition for a full membership vote. The Board of Directors shall then have the option of voting on the proposed amendments, and if affirmed, in their entirety, render the full membership vote unnecessary. The SBE counsel shall be available to assist chapters with any such proposed amendment, which shall require approval of the Board.~~

Article IX, Section 2

Copies of the amended By-Laws shall be distributed by mail ~~or electronic means~~ or published in a Society publication which is distributed to all members in good standing within ~~60~~ ***120*** days after passage and enactment.

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2GHz DoD/SBE Coordination Locations Announced

For several years, the SBE has worked with the U.S. Department of Defense (DoD), which has been provided co-primary status with broadcasters in the 2025-2110 MHz Broadcast Auxiliary Services (BAS) band as a result of the Advanced Wireless Services-3 (AWS-3) transition. The plan included the DoD deploying a number of training systems that utilize the spectrum it now shares with broadcasters.

To operate the DoD defense systems without causing or receiving interference, a substantial national frequency coordination effort was initiated and led by the SBE, providing in some cases near-real-time coordination.

Through the ongoing coordination and partnership with the DoD, the locations of these DoD sites can now be shared. The following sites have been coordinated for access to the 2025-2100 MHz band with allotted spectrum per the designated market area's home channel plan. If you detect unknown interference in these areas, you're asked to report it by email to 2ghzdata@sbe.org. The list below is sorted alphabetically by state or territory.

Fort Huachuca, AZ
Marine Corps Air Station Yuma, AZ
Yuma Proving Ground, AZ
Fort Irwin National Training Center, CA
Vandenberg Air Force Base, CA
Fort Carson, CO
Piñon Canyon Maneuver Site, CO
Eglin Air Force Base, FL
Fort Benning, GA
Fort Stewart, GA
Naval Base Guam
Marine Corps Base Hawaii
Fort Campbell, KY

Joint Readiness Training Center, Fort Polk, LA
White Sands Missile Range, NM
Fort Drum, NY
Bogue Field, NC
Marine Corps Air Station Cherry Point, NC
Fort Bragg, NC
Fort Bliss, TX
Fort Hood, TX
McGregor Range, TX
Joint Base Lewis-McChord, WA
Yakima Training Center, WA

Chapter Check

- **Chapter 1 Binghamton**
Donald L. Perkins, CBT
- **Chapter 16 Seattle**
Terry Spring, CBT
- **Chapter 43 Sacramento**
Dave Sauer (posthumous)
- **Chapter 59 Kansas City**
Mike Rogers
- **Chapter 91 Central Michigan**
Gary Blievernicht
- **Chapter 106 Panhandle (FL)**
Tom Johnson



◀ **Chapter 17 Minneapolis**
Jon Blomstrand

▶ **Chapter 38 El Paso**
Eli Garcia Mendoza (I) receives the award from Elias Ventanilla, chief engineer of KVIA-TV 7, El Paso, TX.

▼ **Chapter 80 Fox Valley**
John Pfankuch (c) receives the award from SBE Board member Steve Brown, CPBE, CBNT (I), and Chapter 80 Past Chair Bill Hubbard, CPBE.



▶ **Chapter 109 Des Moines**
Keaton Scovel, CBRE, (I) receives his award from Chapter 109 Des Moines Chapter Chair Gregg Richwine.



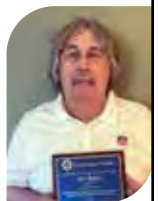
Chapter Engineer of the Year Honorees

SBE members who are honored by their chapters as a chapter engineer of the year are automatically entered into consideration for the Robert W. Flanders SBE Engineer of the Year award. Eleven SBE members were selected by their chapters for the local honor in 2021.

▶ **Chapter 15 New York**
Chris Tobin's wife, Lisa Chase, accepted his award posthumously.



▶ **Chapter 70 Northeast Ohio**
Jim Baird



MMAP, continued from p. 1

president, as were Vice President Ted Hand and Treasurer Jason Ornellas. Secretary Kevin Trueblood was sworn in for his third term. Incumbent directors Charles "Ched" Keiler, Geary S. Morrill, and Dan Whealy were sworn in for their new two-year terms.

Zhulieta Ibisheva, CBTE, CBT; Jeff Juniet, CBTE; and David Ratener, CPBE, CBNT; were sworn in for their first two-year terms as a directors. The event marked the completion of Mark Fehlig's and Chris Tarr's terms as directors.

The re-elected and new directors join Stephen Brown, Roswell Clark, Kirk Harnack, Thomas McGinley, Shane Toven and Fred Willard, who are midway through their two-year terms. Wayne Pecena remains on the board as immediate past president.

Awards Recognition

For the awards portion of the program, chapter statistical awards were presented, as were the individual awards, including the Robert W. Flanders SBE Engineer of the Year award to Chris Tobin, the SBE Technology Award to Telos Alliance for the Axia iQs AES67 Mixing Console Software, and Best Educational Event to the Wisconsin SBE Chapters and the Wisconsin Broadcasters Association for the Wisconsin Broadcasters Clinic held in October 2020.

The SBE's newest Fellow member, SBE Certification Director Megan Clappe, was also recognized during the virtual meeting.

The SBE plans to hold its 2022 National Meeting events in September 2022 in Syracuse, NY, during the 2022 SBE22 Broadcast & Technology Expo.



Clappe

Thanks to these SBE Sustaining Members for their support of the SBE Membership Meeting & Awards Program.



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Watch the replay of the SBE 2021 Membership Meeting & Awards Program on the SBE YouTube Channel.

sbe.org/youtube

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LEGAL PERSPECTIVE

By Chris Imlay, CBT
SBE General Counsel
cimlay@sbe.org

Protecting the Communications Infrastructure: Equipment Authorization Rule Changes

As surprising as this may sound, Congress still has *some* bipartisan legislation under consideration. As this is written, the House has just passed the Secure Equipment Act. It requires the FCC to update its equipment authorization process to end the review and approval of telecom equipment and devices made by companies deemed an unacceptable risk to U.S. national security. Similar legislation has been introduced in the U.S. Senate, sponsored by telecom pros Marco Rubio and Ed Markey. But this is not the beginning of the story by any means. The FCC has had an open docket on this subject since June (ET Docket 21-232), and legislation on the subject goes back a long way before that.

The FCC's June 17, 2021, *Notice of Proposed Rulemaking and Notice of Inquiry* asks for comment on its proposal to prohibit the authorization of any communications equipment on the list of equipment and services (the "Covered List") that the FCC maintains pursuant to the *Secure and Trusted Communications Networks Act of 2019*. Equipment on the Covered List has been found to pose an "unacceptable risk to the national security of the United States or the security and safety of United States persons." The FCC asks (1) whether it should revoke existing authorizations of communications equipment on the Covered List; and (2) whether it should require additional certifications relating to national security from applicants who wish to participate in FCC auctions.

Since 2012, Congress, the Executive Branch and the FCC have prioritized identifying and eliminating potential security vulnerabilities in communications networks and their supply chains, viewing the situation as a "critical national security goal." Initiatives to protect communications networks and telecommunications supply chains date back a decade, when, in 2012, the House Permanent Select Committee on Intelligence released a bipartisan report assessing the counterintelligence and security threat posed by Chinese telecommunications companies operating in or providing equipment to customers in the United States. The National Defense Authorization Act for Fiscal Year 2018 addressed concerns over the purchase and use of specifically identified communications equipment from the People's Republic of China. The 2018 NDAA precluded the Department of Defense from using telecommunications equipment or services produced or provided by Huawei Technologies Company or ZTE Corporation for certain programs.

The subsequent National Defense Authorization Act for Fiscal Year 2019 prohibited the head of an Executive Branch agency from using Federal funds to procure or obtain equipment, services, or systems that use "covered telecommunications equipment or services" as a substantial or essential component of any system, or as critical technology as part of any system. Section 889(f)(3) of the 2019 NDAA defines "covered telecommunications equipment or services" as (1) telecommunications equipment produced by Huawei or ZTE or any subsidiary or affiliate of such entities; (2) for certain safety and security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company, or any subsidiary or affiliate of those entities; (3) telecommunications or video surveillance equipment services provided by such entities or using such equipment; or (4) telecommunications or video surveillance equipment or services

produced by an entity that the Secretary of Defense, in consultation with the Director of National Intelligence or the Director of the FBI, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country. A "covered foreign country" is currently defined as the People's Republic of China only.

Steps to Security

In May 2019, the White House issued Executive Order 13873, declaring a national emergency with respect to the security, integrity, and reliability of information and communications technology and services, and granting the Secretary of Commerce the authority to prohibit transactions of information and communications technology or services when, among other things, the transaction would pose undue risks to U.S. critical infrastructure or national security.

The 2020 Secure Networks Act, at Section 2, requires that the Commission publish, and periodically update, a list of "covered communications equipment and services" (the statutory definition of the Covered List) that have been determined to pose national security risks. Though the Act does not specifically obligate the FCC to revoke existing equipment authorization grants previously issued for equipment on the Covered List, or to preclude additional grants to a covered entity or those from a covered foreign country, it does preclude the use of Federal funds for the acquisition of equipment on the Covered List, and it provides reimbursement funding for removal from systems and networks of equipment that is listed on the Covered List.

The Secure Networks Act is quite specific as to what characteristics are necessary to result in inclusion on the Covered List. First, the communications equipment or service must, based exclusively on determinations made by Congress, certain government agencies, or interagency bodies, "pose an unacceptable risk to the national security of the United States or the security and safety of United States persons;" and second, the equipment or services must be "capable of (A) routing or redirecting user data traffic or permitting visibility into any user data or packets that such equipment or service transmits or otherwise handles; (B) causing the network of a provider of advanced communications service to be disrupted remotely; or (C) otherwise posing an unacceptable risk to the national security of the United States or the security and safety of United States persons."

The FCC has authority to revoke or deny equipment authorization grants to entities on the Covered List pursuant to its authority set forth in Section 303(e) of the Communications Act of 1934 to "[r]egulate the kind of apparatus to be used with respect to its external effects." Those external effects could include RF interference potential; the potential to exceed RF exposure guidelines or limits; the potential to adversely affect telecommunications networks; or in other respects adversely affect the security and safety of the United States and its citizens.

The writing seems to be on the wall in Congress, in the White House, and at the FCC, which are unified on this subject. There will likely be changes in the FCC's equipment authorization policies soon.



FOCUS ON THE SBE

By James Ragsdale
SBE Executive Director
jagsdale@sbe.org

Called to Work Together

It has been great to begin traveling to SBE Ennes Workshops, meeting SBE members and others involved in the broadcast engineering field. We provided an Ennes Workshop in August in Harrisburg, PA, hosted by SBE Chapter 41, and in Atlanta, hosted by the Georgia Association of Broadcasters. At both of these events, I was able to meet members and non-members who were deeply invested in strengthening the broadcast engineering field. Engineers, station management, manufacturers, broadcast associations, and educators are working to develop tools for the future of the industry. I am convinced that the public will value what the industry brings to them if the content continues to be relevant to their lives.

One of the things I observed at these events is the value local chapters provide. Our members work hard to support each other. I heard many stories from engineers about how they were helped by their fellow engineers when they were faced with new challenges they had not seen before. If they had been in the industry for more than a few years and even if they had held engineering positions at several facilities, they had relied on each other for knowledge and insight. Those who were new to the industry found this support for each other to be both unusual and encouraging. Many would never have gotten through tough assignments without it! And the experience provided a lot of laughs as well!

However, you already know that the last couple of years have been really difficult for all of us. Our role in the industry had already been made more difficult for several years by market forces we couldn't control. The isolation that resulted from the pandemic made it more difficult for local chapters to function. Face-to-face meetings became impossible almost overnight, and for a few months there were no good options. Virtual meetings were a temporary solution for some chapters, but not a complete solution for the long-term. Many



SBE Ennes Workshops were recently held in Harrisburg, PA (above), and Atlanta.

chapters paused their meeting schedule and some have never resumed meeting.

As local conditions permitted, some chapters have been able to resume meeting in-person or have adopted a hybrid schedule of alternating in-person and virtual meetings. The alternating schedule made it possible for some members to attend virtual meetings because they were on the fringe area of a chapter and couldn't make the long drives to attend in person. Others were able to attend in-person, finding the camaraderie and support that they were missing in virtual meetings.

In some regions where the number of broadcast engineers located in the region had been reduced, two or more chapters began meeting together, providing more activities than a single chapter was able to provide. Also, the combined chapter events could better utilize the time that a presenter dedicates to the preparation and delivery of his or her content at the meeting.

For chapters located in warmer climates, some held outdoor events. These often included a cookout or barbecue. I receive many chapter newsletters that include great pictures of our members enjoying themselves in a local park, someone's back yard, on boats, or at the beach. I applaud what many of you have done these last few months to provide for a relaxing and enjoyable time for your chapter members.

Regardless of how you have done it, meeting together is an important way that our members support each other. If you are a part of an inactive chapter, consider organizing an event for the members in your area. If your chapter is active but there is a chapter nearby that doesn't seem to be, consider inviting them to your events. We in the national SBE office will support your efforts. Working together is the only way that we can grow and thrive.

SBE Fellow Nominations Open

by Troy Pennington, CSRE, CBNT; Chair, SBE Fellowship Committee
SBE members: Do you know an SBE member who has contributed to the success of an SBE chapter or the broadcast industry? Has this person exhibited a dedication to the advancement of the broadcast engineer, the field of broadcast engineering and the Society of Broadcast Engineers itself? Someone like this deserves to be recognized for his or her efforts. Consider nominating him or her for the SBE Fellow rank of membership. The SBE is now accepting nominations for 2022.

Fellow membership is the highest level of SBE membership. It's a form of recognition for someone who has contributed significantly to the society, the field of broadcast engineering or its allied professions, or by disseminating his or her broadcast knowledge and promoting its application in practice. Eighty-eight members have been recognized with the honor in the society's 57 years of existence.

To nominate a member, candidates must be proposed in writing by a voting member to the Fellowship Committee. The nomination

must include a comprehensive professional history of the nominee and an explanation of why the candidate is deserving of this honor. The nomination must also include the written endorsements of at least five other voting SBE members. All nominations are to be kept confidential. No others besides the nominators and the members of the Fellowship Committee should be aware of the nomination. Moreover, the nominee should not be made aware that he or she has been nominated.

Nominations for 2022 must be received no later than March 15, 2022, for consideration. The Fellowship Committee will bring the names of nominees to the Board of Directors for consideration and election at the April 2022 meeting. The SBE secretary will notify those elected. Awards will be presented at the SBE National Awards Dinner during the 2022 SBE National Meeting to be held in Syracuse, NY. Submit your nominations to Fellowship Committee Chair Troy Pennington, CSRE, CBNT; 6156 Hampton Hall Way; Hermitage, TN 37076, or to tpennington@sbe.org.



ENGINEERING PERSPECTIVE

By Chris Tarr, CPBE, AMD, DRB, CBNE
Chair, SBE Mentoring Committee
Group Director of Engineering; Magnum Media
ctarr@sbe.org

Step Up to New Challenges

In our careers, we always aspire to climb the ladder. Rarely are we satisfied with staying where we are or sit around and wait for things to happen. I recently made a change that was a big step up, and while I was sure I was ready, I quickly realized I underestimated what it was going to take.

In 2020, I left my 15-year career as a local director of engineering at Entercom (now Audacy) to take on a new role as group director of engineering for Magnum Media, a regional group with 21 full-power stations and 15 FM translators.

I've known the owner of the group for almost 20 years, and he used a combination of contract engineers to take care of things, while handling the coordination of it all himself. He'd always joke that someday we'd work together, and sure enough we now do. The group got large enough that he needed to create this position, and it was good timing for me.

Having taken care of six large market stations for so long had me convinced that this would be a walk in the park. After all, I'm just scaling up a little, right?

That was an understatement.

I now have many more responsibilities. The one thing that I didn't realize that I wasn't prepared for? The buck stops with me.

I've always been a very responsible guy. I'm like a walking FCC rule book. I've had people work under me who all say pretty good things about me. I have a reputation of doing good work. In short, the group owner has a lot of confidence that I'm the right guy for the job (and a year and a half later, he'll tell you he was right).

The hardest change though, is the increase in responsibilities. Instead of working for a chain of command, I work with the owner. He and I talk several times a week, sometimes several times a day. He relies on me to give him factual, accurate information to make business decisions. Sometimes my decisions determine whether we're going to spend a lot of money and resources. You don't want to get that wrong.

Fortunately, I very quickly learned some helpful guides to handle the job.

- ▶ Be Humble
- ▶ Be Organized
- ▶ Learn
- ▶ Have Conviction
- ▶ Be Mature

Five Helpful Tips

First, be humble. Understand that even though you've reached a big milestone, you still have a lot to learn. You need to be honest about your shortcomings and be comfortable leaning on people for help. I'd rather ask someone to help me come up with the right answer rather than believe I have them all and make a mistake. After all, at this level, mistakes can have big consequences.

Second, be organized. With more responsibility comes more work. Things will come at you quickly. Have a system set up to record not only the big picture but the day-to-day items that come up in phone calls. I use project tracking software for the large projects, and the to-do app on my iPhone for the little things that come up. The iPhone to-do app is nice because I can schedule tasks to pop-up as I arrive at a location, or at a certain time.

Third, learn. There was a lot of information about the business I wasn't privy to before. Now, working side-by-side with the owner, I'm learning everything I can about the business. When you're at that level, the success of the group and your co-workers is strongly tied to you. Decisions you make should be well thought out and vetted. Sometimes you need to make the decision to delay that equipment upgrade because of other end-of-quarter expenses for example.

Fourth, have conviction, yet keep an open mind. I've learned that these two seemingly opposite items are tightly interwoven. When you must make a difficult decision, take the time to thoroughly investigate the answer. When you're confident it is right, present it with conviction. Remember, the buck stops with you, and people are counting on you to have done your homework. I've gotten into debates with the group owner on issues because I know that I was making the right decision. On the other hand, part of that decision making with conviction means approaching the problem with an open mind. More than once I've been convinced that I was right because it was one of those things that I always did a certain way. However, after really looking at it, it made sense to change it up based on the situation.

Finally, be mature. When you're just a "cog in the machine" it's easy to sit around and complain about or make fun of the job, your employers, or your co-workers. While I believe that having fun is very important, you also now need to understand that co-workers, peers, and vendors will place a lot of stock in anything you say. A few words can build the group up, or tank it completely. Choose carefully!

If you find yourself in a position to take on more responsibility, remember that it's not only about what you have done, it's also about what heights you'll hit in the future! 🎯

Plan Now to Attend the 2022 Leadership Development Course

The SBE is proud to again offer the SBE Leadership Development Course, and plans are being made to present the course in August in Atlanta. Make plans now to take part in this SBE tradition that started in 1997.

Specifically designed for broadcast engineers who have or aspire to have management responsibilities, the SBE Leadership Development Course is for technically adept people to acquire and develop skills for sound leadership, supervisory and management skills. The course is equally beneficial for those who are already in management and for those without prior management or supervisory experience.

Broadcast organizations may want to consider sending a group of employees to the course to share the experience of this highly interactive event. Registration includes all course materials, three days of instruction, the Leadership Development Webinar Series of three webinars, a certificate of completion, light breakfast and afternoon snacks. SBE Members receive a discount on registration.

The cost is \$670 for SBE Members and \$725 for Non-Members. Look for details and register at sbe.org/ldc. Questions? Contact Education Director Cathy Orosz at 317-846-9000 or corosz@sbe.org.

NEW SUSTAINING MEMBER



- AC Video Solutions • 2014**
Andrea Cummis 201-303-1303
Consulting, Systems Design/Integration
- American Tower Corporation • 2000**
Tiffany Yu 603-930-9091
Development/Construction/Management
- Audemat-Worldcast Systems Inc. • 2000**
Christophe Poulain 305-249-3110
Control Manufacturer
- Barnfind-USA, Inc. • 2021**
George Gonos 919-748-7373
Fiber Transport Solutions
- Belden Electronic Division • 1991**
Rose Lockwood 203-500-4743
Fiber and Copper Cabling Infrastructure
- Blackmagic Design • 2012**
Terry Frechette 408-954-0500
Production Switchers, Digital Cameras,
Routers, Video Editing and Monitoring, Color
Correction, Video Converters
- Bracke Manufacturing LLC • 2012**
Patra Largent 949-756-1600
RF & Microwave Components
- Broadcast Depot • 2018**
Tim Jobe 305-281-7540
TV, Satellite, Radio, IP
- Broadcast Devices, Inc. • 2015**
Robert Tarsio 914-737-5032
Audio/RF Support Products
- Broadcast Electronics Inc. • 1978**
Perry Priestley 217-224-9600
Radio Equipment Manufacturer
- Broadcast Software International • 2016**
Marie Summers 888-274-8721
Radio Automation, Audio Logging
- Broadcast Supply Worldwide • 1986**
Shannon Nichols 800-426-8434
Audio Broadcast Equipment Supplier
- Broadcasters General Store • 2004**
Buck Waters 352-622-7700
Broadcast Audio Video Distributor
- Burk Technology • 2019**
Jim Alinwick 978-486-0086 x7404
Transmitter Facility Control Systems
- Calrec Audio • 2016**
Helen Carr 703-307-1654
Audio Mixing Equipment
- Canon USA Inc. • 1985**
Larry Thorpe 201-807-3300, 800-321-4388
Broadcast Lenses & Transmission Equipment
- Cavell, Mertz & Associates Inc. • 2011**
Gary Cavell 703-392-9090
Consulting Services
- Comrex Corporation • 1997**
Chris Crump 978-784-1776
Audio & Video Codecs & Telephone
Interfaces
- Continental Electronics • 1976**
Dale Dalesio 412-979-3253
TV and Radio Transmitters
- Crawford Broadcasting Company • 2021**
Cris Alexander 303-481-1800
Media Company
- CueScript • 2014**
Michael Accardi 203-763-4030
Teleprompting Software & Hardware
- Cumulus Media, Inc. • 2021**
Conrad Traumann 212-419-2940
Audio Media Company
- Davicom, Division of Comlab, Inc. • 2014**
Louis-Charles Cuietier 418-682-3380 x512
Remote Site Monitoring and Control Systems
- Dialight Corporation • 2006**
David Jennings 732-919-3119
FAA Certified Obstruction Lights
- Dielectric • 1995**
Cory Edwards 207-655-8131
Radio & TV Antenna Systems and Monitoring
- Digital Alert Systems, LLC • 2005**
Bill Robertson 585-765-1155
Emergency Alert Systems
- DoubleRadius, Inc. • 2012**
Jeffrey Holdenrid 704-927-6085
IP Microwave STL
- Drake Lighting • 2015**
Dave Sheppard 270-804-7383
FAA Obstruction Lighting - Medium and High
Intensity
- DTS Inc./HD Radio Technology • 2014**
George Cernat 443-539-4334
HD Radio Technology
- du Treil, Lundin & Rackley, Inc. • 1985**
Jeff Reynolds 941-329-6000
Consulting Engineers
- The Durst Org. - 4 Times Square • 2004**
Tom Bow 212-997-5508
TV/FM/Microwave Tower Site
- DVEO - Division of Computer Modules Inc. • 2011**
Laszlo Zoltan 858-613-1818
Everything About Transport Streams
- Econco • 1980**
Debbie Storz 800-532-6626, 530-662-7553
New & Rebuilt Transmitting Tubes
- ENCO Systems Inc. • 2003**
Samantha Bortz 248-827-4440
Playout and Automation Solutions
- ERI - Electronics Research • 1990**
Zachary Bailey 812-925-6000
Broadcast Antennas, Transmission Line,
Filters/Combiners, Towers and Services
- Floral Systems • 2008**
Shawn Maynard 877-774-1058
Television Broadcast Automation
- Heartland Video Systems, Inc. • 2011**
Dennis Klas 920-893-4204
Systems Integrator
- Highlights, Inc. • 2016**
Timothy Nash 352-564-8830
Obstruction Lighting Maintenance
- Hitachi Kokusai Electric Comark • 2013**
Jack McAnulty 413-998-1523
Manufacturer Broadcasting Transmission
Equipment
- iHeartMedia, Inc. • 2019**
Troy Langham 918-664-4581
Radio Group Owner
- Indiana Broadcasters Association • 2019**
Dave Arland 317-701-0084
Indiana Association for Radio & TV
Broadcasters
- Inovonics Inc. • 2012**
Gary Luhrman 831-458-0552
Radio Broadcast Equipment
- Jampro Antennas Inc. • 2011**
Alex Perchevitch 916-383-1177
DTV, FM-HD Radio, DVB-T/T2, ISDB-T, DAB
- JVC Professional Video • 2014**
Edgar Shane 973-317-5000
Professional Video Products, Camcorders,
Display Monitors, Recording Decks
- Kathrein USA Inc. • 1985**
Les Kutasi 541-879-2312
Antennas for Broadcasting &
Communications
- Kintronc Labs, Inc. • 2015**
Brad Holly 423-878-3141
Radio Broadcast Antenna Systems - ISO9001
Registered Company
- latakoo • 2021**
Paul Adrian 214-683-0791
Media Workflow Automation
- LBA Technology Inc. • 2002**
Jerry Brown 252-757-0279 x228
AM/MW Antenna Equipment & Systems
- Linkup Communications Corporation • 2017**
Mark Johnson 703-217-8290
Satellite Technology Solutions
- LYNX Technik • 2007**
Steve Russell 661-251-8600
Broadcast Terminal Equipment Manufacturer
- Markertek • 2002**
Adam June 845-246-2357
Specialized Broadcast & Pro-Audio Supplier
- Micronet Communications Inc. • 2005**
Jeremy Vize 972-422-7200
Coordination Services/Frequency Planning
- Microwave Video Systems • 2011**
Warren J. Parece 781-665-6600
Microwave Equipment Rental, Sales & Service
- Moseley Associates Inc. • 1977**
Bill Gould 805-968-9621 x785
Digital STLs for Radio and Television
- MulticAM Systems • 2020**
Mary Ann Seidler 207-776-5338
Fully automated live video production
- MusicMaster • 2014**
Jerry Butler 352-231-8922
Advanced Music Scheduling Solutions
- Nascar Productions • 2014**
Abbey Kielcheski 704-348-7131
Live/Post Production Services
- National Association of Broadcasters • 1981**
Industry Trade Association 202-429-5340
- National Football League • 1999**
Michael Katzenoff 212-450-2368
Game Day Coordination Operations
- Nautel Inc. • 2002**
Jeff Welton 877-662-8835
Radio Broadcast Transmitter Manufacturer
- Nemal Electronics Int'l Inc. • 2011**
Benjamin L. Nemser 305-899-0900
Cables, Connectors, Assemblies and Fiber
Optic
- Neutrik USA, Inc. • 2012**
Kathy Hall 704-972-3050
Ruggedized Optical Fiber Systems
- NPR Distribution Services • 2019**
Dan Riley 202-513-2624
Your Content Delivery Partners
- Orban Labs, Inc. • 2011**
Mike Pappas 480-403-8300
Audio Processing AMFMTV
- Pasternack Enterprises • 2001**
Christine Hammond 949-261-1920
Coax & Fiber Products
- Potomac Instruments • 1978**
Zachary Babendreier 301-696-5550
RF Measurement Equipment Manufacturer
- ProAudio.com- A Crouse-Kimzey Co. • 2008**
Mark Bradford 800-433-2105 x560
Proaudio Broadcast Equipment Distributor
- Propagation Systems Inc. - PSI • 2010**
Doug Ross 814-472-5540
Quality Broadcast Antenna Systems
- QCcommunications • 2019**
Tony zumMallen 816-729-1177
Services Behind the Scenes
- Quintech Electronics and Communications Inc. • 2002**
James Herbstritt 724-349-1412
State-of-the-art RF Hardware Solutions
- QVC • 2011**
Kevin Wainwright 484-701-3431
Multimedia Retailer
- Rohde & Schwarz • 2003**
Walt Gumbert 724-693-8171
Transmitters, Test & Measurement, Video
- Ross Video Ltd. • 2000**
Jared Schatz 613-228-0688
Manufacturer, Television Broadcast
Equipment
- Sage Alerting Systems Inc. • 2010**
Harold Price 914-872-4069 x113
Emergency Alert Systems Products
- SCMS Inc. • 2000**
Bob Cauthen 800-438-6040
Audio and RF Broadcast Equipment Supplier
- SEG • 2014**
Chris Childs 913-324-6004
Supply Chain Products and Services
- Shively Labs • 1996**
Dale Ladner 888-SHIVELY
FM Antennas & Combiners
- Shure Incorporated • 2012**
Bill Ostry 847-600-6282
Microphones, Wireless Systems, Headsets
- Sierra Automated Systems and Eng. Inc. • 2011**
Al Salci 818-840-6749
Routers, Mixers, Consoles, Intercoms
- Solid State Logic • 2014**
Steve Zaretsky 212-315-1111
Digital Audio Mixing Consoles, Networked
Audio Routing, Embedded Audio Solutions
- Staco Energy Products Co. • 2010**
Paul Heiligenberg 937-253-1191 x128
Manufacturer of Voltage Regulators, UPS
- SuiteLife Systems • 2019**
Nigel Brownnett 310-405-0839
Manage. Monitor. Control
- Sutro Tower Inc. • 1989**
Raul Velez 415-681-8850
Broadcast Tower Leasing
- Synthax Inc. • 2020**
Brittany Hilton 754-206-4220
Audio Codecs and Converter Solutions
- Technical Broadcast Solutions, Inc. • 2018**
Robert Russell 302-414-0055
Engineering and Consulting Services
- Telos Systems/Omnia/Axia • 2003**
John Bisset 216-241-7225
Telos Systems Talk-Show Systems
- Teradek • 2011**
Jon Landman 949-743-5783
Camera-top ENG Solutions
- Tieline The Codec Company • 2003**
Dawn Shewmaker or Jacob Daniluck 317-845-8000
Audio Codec Manufacturer
- Unimar Inc. • 2001**
Thad Fink 315-699-4400, 813-943-4322
Tower Obstruction Lighting Designer,
Manufacturer, Distributor
- Wheatstone • 2010**
Jay Tyler 252-638-7000
IP Consoles, Routers & Processors
- WideOrbit • 2012**
Jim Hammond or Brad Young 415-675-6700
Radio Automation and Playout
- Wireless Infrastructure Services • 2006**
Travis Donahue 951-371-4900
Repacking Services - West Coast Turnkey
Services

Members With 25 or
More Years of Membership
New Sustaining Members
Become a sustaining member.
Apply online or call 317-846-9000.

Member Spotlight: Dana Nahumck

Member Stats

SBE Member Since: April 1993

Certifications: CBTE

Chapter: 22 Central New York

Employer: Vermont PBS/VPR

Position: Director of Engineering

Location: Burlington, VT

I'm Best Known For: The ability to get the job done. Whether the issues include deadlines, landowners, or using truck and hot tub parts to fix a transmitter, a solution can usually be found.

Q. *What do you enjoy or value most about your SBE involvement?*

A. The ability to network with my peers and keep long lasting friendships through the years. Also, I loved being part of the local SBE Chapter 22 convention committee for many years.

Q. *What got you started in broadcast engineering?*

A. I loved my music loud. I thought if I worked in radio, I could turn it up! That in turn led me to be interest-



ed in amplifiers, which then meant transmitters. Although, it ended up being TV transmitters that my career was based on until recently, which now finally includes radio transmitters too.

Q. *What do you like most about your job?*

A. That it's different every day! Whether it is sitting at a desk, working on the transmitter at the top of a mountain, or behind the racks of a server room, there is always something different and challenging to do!

Q. *When I'm not working I...*

A. ...love to work in my home wood-working shop, or take off to relax with an adventure on my Harley.

Q. *What's your favorite Gadget?*

A. My laser tape measure. Which also doubles as a cat toy.

Dana heading out for an adventure on her Harley.

WELCOME TO THE SBE

NEW MEMBERS

Joshua Banks - Washington, DC
 Fernando Bartolozzi - Concord, NH
 Jia Bigham - Lincoln, NE
 Thomas L. Bradley - Houston, TX
 William O. Bullock - Cincinnati, OH
 Jaime Cabrera - Weston, FL
 Thaddeus Christian - Bend, OR
 Thomas D. Dall - Littleton, CO
 Ethan S. Dayton - Englewood, CO
 Lee J. Deprey - Cary, IL
 Gerard J. DeSantos - Bloomington, CA
 Matthew Edwards - Bozeman, MT

Jeffrey N. Elliott - Spring Grove, PA
 Kimbal L. Fatica - Cuyahoga Falls, OH
 Kergi Germain - Boston, MA
 Neal Hall - Manassas, VA
 Johnathan L. Henning - Bartlett, TN
 Grant Hovander - Mission Viejo, CA
 Michael Kordel - Downingtown, PA
 Chris Kyle - Knoxville, TN
 Tyler C. Lange - Menifee, CA
 Wesley D. McIntyre - Columbus, OH
 Christopher McKinley - Winchester, CA
 Victor M. Medellin - Corpus Christi, TX

Michael J. Mora, Jr. - Corpus Christi, TX
 Jacob Morris - Bethlehem, PA
 Bryan Nelson - Glen St. Mary, FL
 Thomas H. O'Neill - Indianapolis, IN
 Alexis G. Ortiz - Moreno Valley, CA
 Tasos Paloukos - Roslindale, MA
 Jon E. Panzer - Duluth, MN
 Greg Phillips - Alpharetta, GA
 Aron L. Pryor - Louisville, KY
 Charles N. Renne - New Albany, IN
 Kevin Sanders - Los Angeles, CA
 Aaron C. Schultz - Palmetto, FL

Benjamin A. Smith - Burke, VA
 Scott C. Spongberg - Provo, UT
 Michael Y. Sullivan - Millcreek, UT
 Francis G. Syms - Toronto, ON
 Adam B. Thomas - Milton, ON
 Jim G. Travers - Charlotte, NC
 Amarachukwu C. Ukaegbu - Fort Meade, MD
 Benjamin J. Vaughn - Orlando, FL
 Jake Wang - Denver, CO
 Russell Wells - Louisville, KY
 Zachary Wisneskie - Allentown, PA

NEW STUDENT MEMBERS

Alfred J. Fuentes - Monterey Park, CA
 Kenneth Torres Vargas - Carolina, PR

Colin G. Williams - Connersville, IN
 Vincent B. Worland II - Fort Meade, MD

RETURNING MEMBERS

Frank W. Bell - Clifton, NJ
 Steve Billing - West Palm Beach, FL
 Joshua A. Bush - Indianapolis, IN
 Timothy J. Carroll - Haddonfield, NJ
 Matthew A. Chambers - Moberly, MO
 Sandra W. Christian - Tyrone, GA
 Roger N. du Plessis - Reno, NV
 Dennis R. Dutra, Jr. - Eliot, ME
 David R. Festa - Wethersfield, CT
 Steve N. Garifo - Washington, DC
 Tommy L. Goodson - Rockwall, TX
 Michael Grover - Provo, UT
 Larry E. Handley - Louisville, KY
 Lyn F. Hare - Simsboro, LA
 Bob Hasentufel - Gainesville, FL

Noel Hollingshead - Sand Springs, OK
 Philip M. Holton - Rockford, IL
 Daniel J. Hyatt - La Junta, CO
 Christopher Overby - Temple Hills, MD
 James Patrick - Pasadena, CA
 Roy A. Phillips II - Phoenix, AZ
 Russell G. Rockwell - University Park, PA
 Scott T. Rohrer - Dayton, OH
 David S. Rozek - Marietta, GA
 Carlos Ruiz - Lincoln, NE
 Eli L. Sanders - Canton, GA
 Matt Servis - Belmont, NC
 Robert C. Silva - Philadelphia, PA
 Steven N. Smith - Long Beach, CA
 Jake Tremper - Tampa, FL

RETURNING SENIOR MEMBERS

Jeffrey R. Smith - Sayerville, NJ

NEW ASSOCIATE MEMBERS

Lance D. Coon - Lohrville, IA
 Sharon Hegy - Longmont, CO



In Memoriam

Richard Edwards
 Member #9183
 1947 - 2021

Past Board Member
Past Vice President

Ennes Educational Foundation Trust Announces Five Scholarship Recipients

The Ennes Educational Foundation Trust has awarded five scholarships for 2021. The recipients were chosen from applications received by July 1, 2021, from the previous 12 months.

The Harold E. Ennes Scholarship, Robert D. Greenberg Scholarship, John H. Battison Founder's Scholarship and Gino Ricciardelli Scholarship are awarded to individuals interested in continuing or beginning their education in broadcast engineering and technology. The Youth Scholarship is specifically for a graduating high school senior interested in broadcast engineering as a career. Each scholarship awarded this year is for \$2,500.

The Harold E. Ennes Scholarship recipient is Ismail Otu, CRO, CTO. Originally from the Bronx, NY, Ismail graduated from The Broadcasting Production Technology Program at Central Piedmont Community College (CPC) in Charlotte, NC. He interned at WTVI PBS Charlotte, and earned the *Most Outstanding Student Award* at the Student Excellence Convocation on behalf of the CPC's broadcasting program. Ismail plays several critical roles during live events and concerts for CPC's performing arts and events facilities. He plans to attend The Cleveland Institute of Electronics and major in broadcast engineering/wireless communication electronics to pursue a career in broadcast operations.

Receiving the Robert D. Greenberg Scholarship is Michael Cassara. Michael became interested in television broadcast after becoming involved with Wilton High School's weekly news show, which led to his involvement with Wilton Public School's student-run broadcast team. This turned into a part-time job as he took a leadership position within the team, which he used to build the capability to perform multi-camera broadcasts of the school's various sports games. He is in his sophomore year of studying computer engineering at the University of Pittsburgh to achieve that goal.

The John H. Battison SBE Founder's Scholarship has been awarded to Zachary

Cameron. Zachary attends Ball State University, studying telecommunications. He has held multiple positions as both a broadcast engineer for his high school and production assistant/student broadcast engineer for RBTv. His recent achievements consist of completing an overhaul and upgrade to both his high school TV mobile production carts, rebuilding and upgrading RBTv's Studio B control room, and purchasing and building a remote production pack for RBTv including field cameras, audio equipment and all necessary accessories. His goal is to become a broadcast engineer after graduation.

The Gino Ricciardelli Scholarship has been awarded to Christopher Gamelin. Six years ago, Christopher set a goal to work in the professional world of radio broadcasting. After working at iHeart-Radio and Entercom, he broadened his horizons and interviewed with WFSB - Channel 3 news. Four hours after his interview, he was called up and offered the job of maintenance technician for the company. He was ecstatic that he reached his goal. He never would have seen this coming five years ago. At WFSB, he has many more opportunities to grow and already has met goals of becoming a drone operator, working on remote broadcasts and expanding his electronics knowledge.

Meredith Frank received the Youth Schol-

arship. In high school, Meredith was known as the "go-to video producer" because of the strong relationships she formed with administrative staff while working on video projects. Her production talents have allowed her to spend two years as the director of her school's annual charity reality show competition, *Senior Survivor*. During the pandemic, Meredith was able to produce the show's episodes from home, leading to a charity total of more than \$50,000, and a record breaking \$229,000 during the in-person 2021 competition. Meredith has additional live production experience as a video switcher for her church and as the lead stage manager on five school productions. She will be pursuing her passion for live TV production by moving from her small Midwest town to New York's Hofstra University, where she will earn a degree in television production & studies. Meredith has seen the positive impact that her broadcast work can have, and will forever act with that value in her future career.

The Harold Ennes Scholarship Fund Trust was initiated by Indianapolis Chapter 25 in 1980 in memory of Harold E. Ennes, author of many textbooks for broadcast and broadcast-related communications training and a member of the Indianapolis chapter. Ennes was a member of the SBE's national Certification Committee and made many contributions to the early development of the Certification Program. To encourage greater growth, the Scholarship Trust was transferred by Chapter 25 to the SBE national organization to administer in 1981. The name of the Trust was changed in 1995 to the "Harold Ennes Educational Foundation Trust" to fully embrace its expanded role.



Otu



Cassara



Cameron



Gamelin



Frank

How are Ennes Scholarships Awarded?

The Ennes Educational Foundation Trust offers scholarships to deserving candidates who aspire to a career in the technical aspects of broadcasting. Scholarship awards are used for tuition, room and board or textbook costs at post-secondary educational institutions, or for other technical training programs approved by the Scholarship Committee. Preference will be given to applicants who are SBE members; however, any individuals otherwise eligible, including graduating high school seniors, are encouraged to apply.

- John H. Battison SBE Founder's Scholarship (open to anyone)
- Harold E. Ennes Scholarship (open to anyone)
- Robert D. Greenberg Scholarship (open to anyone)
- Gino Ricciardelli Scholarship (open to anyone)
- Youth Scholarship (specifically for graduating high school seniors)

Donations to the scholarship fund can be sent to the SBE National Office. Please note which scholarship you would like your donation to be applied. Scholarship applications must be filed each year by July 1.

[sbe.org/education/ennes-scholarships/](https://www.sbe.org/education/ennes-scholarships/)

