

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 Promotes Stephen J. Brown to Fellow

At its meeting on April 16, the SBE Board of Directors elevated Stephen J. Brown, CPBE, CBNT, of Appleton, WI, to the membership rank of Fellow. Mr. Brown's career in broadcasting began in 1975 when he began working for WAPL-AM/FM as a part-time announcer and engineer. In 1978, he was hired by Woodward Communications as assistant chief engineer, being promoted to chief engineer in 1980, and then director of broadcast engineering in 1985. In that capacity, he oversees 11 stations in multiple markets.

For many years, Steve volunteered his time as a Program Committee member for the Wisconsin Broadcasters Association in planning the annual Broadcasters Clinic. He is also a founding member of SBE Chapter 80 Fox Valley. From 2018 to 2022, he served two terms on the SBE Board of Directors, serving as Membership Committee Chair. He is SBE Lifetime Certified as a Certified Professional Broadcast Engineer and a Certified Broadcast Networking Technologist.

Recently, Steve worked with the Wisconsin Department of Workforce Development to create a youth apprenticeship pathway for media broadcast technicians. Steve created the list of broadcast technical competencies to prepare for their apprenticeships. While

broadcasting has seen a decline in people working in the technical areas of broadcasting, Steve has taken active steps to fill those ranks.

His education includes an associate of science degree from the University of Wisconsin – Menasha, a Bachelor of Arts degree in economics from Lawrence University, and a Master of Science degree in engineering management from the Milwaukee School of Engineering.

Outside of broadcasting, Steve has worked as an electrical supervisor for the City of Appleton, WI, a member of the St. Therese Parish – Appleton Finance Council, a media representative to the Outagamie County LEPC, and he is a founding member and past president of the Appleton Excel Volleyball Club.

The Fellow honor is the highest membership level in the SBE. Members must have made significant contributions to the broadcast engi-



Brown

see **FELLOW**, p. 4

SBE Plans 2023 National Meeting in Columbus

The Society of Broadcast Engineers 2023 SBE National Meeting will be held in Columbus, OH, on Sept. 27-28, 2023. The event will be held in conjunction with the Midwest Broadcast & Multimedia Technology Conference (MBMTC), presented by the Ohio Association of Broadcasters, the Indiana Broadcasters Association, the Kentucky Broadcasters Association and the Michigan Association of Broadcasters.

able to attend in person can watch.

The Conference is held Sept. 28 at the Greater Columbus Convention Center. It includes a full day of learning and networking designed specifically with broadcast engineers in mind. The goal is to provide an opportunity to explore best practices, compliance guidance and the latest technology and equipment available.

The SBE National Meeting begins on Wednesday, Sept. 27 with the fall meeting of the national SBE Certification Committee from 2 to 4 p.m. The fall meeting of the SBE Board of Directors will take place from 6 to 10 p.m. Attendance at the Board meeting is open to any SBE member. On Thursday, activities begin with the annual SBE Fellows Breakfast, a reunion of SBE Fellow members including this year's inductee, Stephen J. Brown, CPBE, CBNT. In the afternoon, the one-hour SBE Annual Membership Meeting will be held. Following the Membership Meeting will be a reception, and then the Annual SBE Awards Reception and Dinner. The dinner will feature a guest speaker and the

presentation of the society's major awards, including the Robert W. Flanders SBE Engineer of the Year and James C. Wulliman SBE Educator of the Year awards. The dinner program will conclude with the presentation of the Fellow honor to Brown.

Tickets (\$17) for the SBE Awards Reception and Dinner will go on sale at the SBE website on June 12. The other SBE Nation-

see **MEETING**, p. 3



The Greater Columbus Convention Center

The SBE National Meeting includes the SBE National Awards Reception and Dinner, recognizing outstanding achievement by SBE members and chapters. The SBE will also conduct the SBE Annual Membership Meeting on Sept. 27. The SBE is working on streaming the meeting live so members not

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SBE Election Candidates Announced

Each year, the SBE membership elects members to serve on the National Board of Directors, the governing body of the society. This includes all four officers for one-year terms and half the 12 directors for two-year terms. Additional candidates may be nominated by the membership. Any eligible member proposed by at least ten SBE members to the national Secretary by June 30 will be added to the ballot.

The election will take place July 15 through August 15. Balloting will be via the election website, except for those members who have opted out of electronic voting this year or who have not provided the SBE National Office with their email address. They will receive their ballots through the mail.

The Nominations Committee is chaired by Immediate Past President Wayne Pecena, CPBE, 8-VSB, AMD, ATSC3, DRB, CBNE. Committee members are Roz Clark, CPBE, CBNT, Clearwater, FL; John Collinson, CPBE, 8-VSB, AMD, ATSC3, DRB, CBNE, New Port Richey, FL; Chris Crump, CBNE, Buford, GA; and Mark Johnson, Panama City Beach, FL.

The candidate slate was assembled by the Nominations Committee, and then one additional director nomination was received from the membership. The candidates are noted here.

For more information about candidacy, contact SBE Secretary Jason Ornellas at jornellas@sbe.org or SBE Executive Director Jim Ragsdale at jagsdale@sbe.org or 317-846-9000.



Hand



Trueblood

Candidate Slate

* indicates incumbent

Officers

President: Ted Hand, CPBE, 8-VSB, AMD, ATSC3, DRB

Chapter 45 Charlotte; Charlotte, NC

Vice President: Kevin Trueblood, CBRE, CBNT

Chapter 90 Southwest Florida; Estero, FL

Secretary: Geary Morrill, CPBE, AMD, CBNE

Chapter 91 Central Michigan; Saginaw, MI

Treasurer: Jason Ornellas, CBRE

Chapter 43 Sacramento; Sacramento, CA



Morrill



Ornellas

Directors

Isaiah Chavez, CBT, CBNT

Chapter 39 Tampa Bay Area; Largo, FL

Terry Douds, CPBE

Chapter 52 Central Ohio; Lancaster, OH

Brad Humphries, CBT

Chapter 45 Charlotte; Charlotte, NC

Zhulietta Ibisheva, CBTE *

Chapter 50 Hawaii; Honolulu, HI

Jeff Juniet, CBTE *

Chapter 42 Central Florida; Casselberry, FL

Charles "Ched" Keiler, CPBE, 8-VSB, ATSC3, CBNE *

Chapter 53 South Florida; Pompano Beach, FL

David Ratener, CPBE, CBNT *

Chapter 16 Seattle; Kent, WA

Christian Vang

Chapter 5 Atlanta; Smyrna, GA

Jeff Welton, CBRE

Chester, NS

Dan Whealy, CBTE *

Chapter 96 Rockford; Waterloo, IA

MEETING, from p. 1

al Meeting events are included with your MBMTC registration. MBMTC registration opens in July.

The SBE National Meeting and MBMTC will be held at the Greater Columbus Convention Center. Watch for information on

hotel reservations from the MBMTC.

Save the dates and plan to make your way to Columbus for the Midwest Broadcast & Multimedia Technology Conference and SBE National Meeting!



DTV power is licensed on the basis of average power.



A. True
B. False

Answer on page 6



LETTER FROM THE PRESIDENT

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

The NAB Show in Review

Well, another NAB Show is in the books. The weather was perfect all week, and the turnout was back up to 65,000 people. It almost felt like the NAB Shows of the old days. The number of vendors was back up, and many of them were back to larger booths.

Because the NAB scaled back the SBE presence in the Broadcast Engineering and IT Conference, we decided to do our own two-day seminars on Friday and Saturday. We had more than 60 people register for the ATSC 3.0 seminar and more than 30 people register for the RF 101 seminar! Both seminars were terrific. We had some of the smartest people in our industry as presenters. I would like to thank all the folks who helped put these events together, especially session organizers Fred Baumgartner, Geary Morrill, Jeff Welton and SBE Education Director Cathy Orsz. The response to these seminars was terrific, and we are already talking about what we should do next year. If you have any ideas for subjects we could present next year, please let us know. We have had some interest in traveling the RF 101 seminar. If you would like to host us for this please let us know about that too!

As usual, we held the SBE Board of Directors meeting on Sunday morning. We also held the Membership Meeting and the Member Reception on Monday evening, which were both very well attended. SBE Treasurer Kevin Trueblood volunteered for host duties for the prize drawings this year, and he did a terrific job. We had lots of people at the reception hoping to win the great prizes from our sponsors. Given the turnout, we expect we'll have a larger event next year. It was great to see so many of our members, sponsors, and friends all together, having a good time.

The SBE added a new social event this year. Working with IEEE BTS and SMPTE, we had an ice cream and beer social on Tuesday at 5 p.m. Many members of all the organizations showed up to eat ice cream and drink beer, and just hang out with all the folks who joined

us. Everyone had a good time and I hope we will continue this event at future NAB Shows.

The SBE staff worked extra hard this year planning and executing all the various events at the NAB Show, and they did an amazing job. I really appreciate all their hard work to make this year's SBE events successful.

As for the actual NAB Show, there were so many new products. What stood out to me were lots of cloud products. Production in the cloud, asset management, editing, master control, and of course cloud storage. Panasonic was showing the Kairos Live Video Production Platform enabling production in the cloud, and Riedel showed the Simplylive production suite, both products were very interesting and real gamechangers for live production.

Lighting products are always fun to check out, the technology has been changing very quickly, and tube LED lights were everywhere. BB&S showed a light that uses POE, so you only need one Ethernet cable to both power the light and control it over DMX. At the B&H booth, an amazing lighting demo that demonstrated how to use moving video as a light source was shown. I'm sure we will be seeing more of all these products next year.

There was lots of talk about FAST channels, I imagine there will be many of these channels popping up from all sorts of content creators pretty quickly.

The next major SBE event will be the SBE National Meeting in Columbus, OH, on Sept. 27 and 28. We will be part of the Midwest Broadcast and Multimedia Technology Conference, which takes place on Sept. 28. It's hard to believe that this will be my last event as president of SBE! Included in the SBE events will be an SBE Board or Directors meeting, The National Membership Meeting, the Awards Reception, and the National Awards Dinner. Put it on your calendar now so we can see you there.



President Cummis leads the SBE Membership Meeting at the NAB Show.

FELLOW, from p. 1

neering field or the SBE. Candidates are nominated by their peers. Since the Society's founding 59 years ago, 83 members have been honored with the Fellow rank.

One nomination letter says that "Steve is an engineer's engineer and non-engineer's engineer." By this, the nominator explains that Steve is able to interact with everyone, from sales to programming. Several nominations also mentions Steve's patience with everyone.

Another nomination says that Steve has shown great leadership in his career in ra-

dio engineering, saying, "He is a man [who] can be trusted. He is a 'can-do' guy." Another nomination notes that "he is a person of his word. You can trust Steve to get it done no matter the task, or if it is out of his comfort zone."

"Steve's commitment to broadcast engineering is unrivaled, and that dedication extends beyond broadcasting," said SBE President Andrea Cummis, CBT. "Steve deserves this honor."

Steve's honor was highlighted during the SBE Membership Meeting held on April

17 during the 2023 NAB Show. He will be recognized at the SBE National Meeting, which will be held in September in Columbus, OH. A list of all those who have been named SBE Fellows is posted on the SBE website at sbe.org/fellows.

The May SBE WEBxtra featured an interview with Steve. Watch the replay of that episode on the SBE YouTube Channel.

sbe.org/youtube



EDUCATION UPDATE

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

It Was a Good NAB Show for Training

It's been a couple weeks since we wrapped up in Las Vegas, and what I'll call a very successful NAB Show for our Training Team. It marked the beginning of new SBE, post-pandemic, in-person training opportunities. For the first time, we presented dual SBE Ennes Workshop tracks simultaneously at the Westgate Resort on the Friday and Saturday before the convention began.

When we made the decision to undertake these pre-conference sessions late last year, we really didn't know what to expect. After all, it was only the second iteration of an in-person NAB Show post-Covid. There are still organizations remaining in virtual-only mode post-pandemic, and we were seriously behind the eight ball regarding event promotion.

However, we also recognized a need to support our membership looking to get a firm grounding (pun intended) in RF principles and practices, as well as meeting the knowledge demands for those rolling out ATSC 3.0 facilities across the US. Fortunately, we had a couple Training Team members who worked tirelessly in bringing it all together.

ATSC 3.0

Fred Baumgartner, who has a long history in creating Ennes Workshop sessions, took on the formidable task of creating the ATSC 3.0 syllabus and recruiting presenters to deliver the content to 65 attendees. He went overtime in proctoring an SBE ATSC3 Specialist Certification exam at the conclusion of day two.

RF101 Boot Camp

I would be remiss to not recognize efforts of Nautel's Jeff Welton. Besides being the driving force behind his employer's efforts at the Nautel Users' Group the following day, Jeff helped us to craft a syllabus in his spare time that started with Ohm's Law and the basics of RF math and took us through design, care and feeding of most everything RF within today's broadcast facility. Additionally, he was instrumental in securing many of the presenters for the endeavor. There were 32 participants registered for the RF 101 Boot Camp track.

BEITC

Tom Mikkelson and Stan Moote organized the SBE Technology Update on Sunday morning of the show once again, which was part of the NAB Show Broadcast Engineering and IT Conference. This session brought folks up to speed on the latest developments in technology since the 2022 Show.

Education Committee Meeting

The Education Committee monthly meeting was face-to-face Sunday afternoon. We heard from Charles Sather about a youth educational initiative taking place in Alaska with its Native Science and

Engineering Program (ANSEP) that we're looking to support.

I also had a lengthy conversation with the executive director of a West Coast state broadcaster association, and we discussed SBE's efforts to provide educational opportunities for its member station technical staffs. I met via Zoom with members of its board of directors and discussed recruitment strategies to find technical help. I helped to identify potential contacts within their state's workforce development program and shared information on the program developed in Wisconsin to provide internship opportunities for high school students interested in exploring a career in broadcast engineering. We also talked about how the SBE Technical Professional Training Program can help to train new hires at member stations. It sounds like their Association will provide TPT scholarships to new hires. Their board members were not familiar with all we have to offer. But they are now.

Finally, we're exploring ways to bring our in-person educational opportunities to areas that may not presently have active SBE chapters. This can serve the obvious purpose of enhancing the technical knowledge of station staff, while exposing learners to the benefits SBE membership can bring to their career development.

If these initiatives sound of interest, I'd like to hear from you. I can be reached here: gmorrill@sbe.org. Your thoughts and suggestions are always welcomed.



Fred Baumgartner, Geary Morrill and Jeff Welton organized the speakers for the SBE Ennes Workshop at the 2023 NAB Show.

Education Almanac

SBE Ennes Workshops

June 9: El Paso
Aug. 21: Nashville, TN
Sept. 16: Jekyll, GA
Oct. 23: Kansas City

Contact the SBE to arrange an SBE Ennes Workshop in your area.
sbe.org/ennes_workshop

ENNES
WORKSHOP

Leadership Development Course

Aug. 2-4: Atlanta

sbe.org/ldc

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.



CERTIFICATION UPDATE

By Larry Wilkins, CPBE, AMD, CBNT
Director of Engineering Services, Alabama Association of Broadcasters
lwilkins@al-ba.com

Defining the Broadcast Engineer

There are three important traits that a broadcast engineer needs to develop to become efficient in his or her career.

First...

The broadcast engineer needs to have a solid understanding of basic electronics. Although technology has progressed over the years, basic electronics is still working behind the scenes. Things like Ohm's Law, frequency and wavelength, components like resistors/capacitors/inductors are all important. Without understanding these items, a lot of the modern technology will be hard to grasp completely.

Second...

The broadcast engineer needs to understand the devices used in facilities. What they do, why are they used and how do they improve the program for the listeners and viewers. Sometimes you may find there is a piece equipment that is not adding anything to the presentation or efficiency of operation and as such can be removed. In our business, less is more.

In this area, the broadcast engineer should understand proper installation, calibration and troubleshooting of each piece of equipment. A major item is to review the program chain, looking for single points of failure. An effective operation should include backup and sometime backups for the backup. Address any place in chain that if fails can stop the program feed.

Third...

The broadcast engineer should create a desire to become a life-long learner. With technology changing at such a tremendous rate, it is imperative that broadcast engineers keep up. The SBE, with its continuing education series of webinars and the certification program, is a great asset in this area.

We probably could add a fourth non-technical trait. That is to become a people person. The broadcast engineer should be a part of the broadcast team and learn to share technical information in an understandable way with others. It also includes being a good listener.

If someone complains about the sound of the station, ask questions to determine what was heard that did not sound right. Do not assume the other person is wrong just because you are the broadcast engineer, *listen* to what they say, and you'll find out if it was a problem with your setup or where they were listening.

I know this sounds cliché, but you will learn far more from listening that you will by talking.

Put Into Practice

In 2012 the Alabama Broadcasters Association (ABA) saw the need to address the items above, plus aid broadcast engineers in their continuing educational efforts by offering a program to introduce new engineers to the technical aspects of broadcasting. The ABA Engineering Academy offers a five-day course several times during the year for radio and television engineers. While we are aware that it is not possible to create new chief engineers in one week, the goal is to cover the basics of broadcast technology in use today. The course starts with basic electronics, analog and digital audio and video, RF system operation and station operation (including FCC Rules). This will groom new engineers to work under a seasoned engineer for on-the-job training.

One area covered in the class is understanding digital audio and

video. It appears that a lot of engineers have not taken the time to look under the hood to see how digital technology works. We cover binary numbers, sample rate, bit depth, aliasing, dither, floating point processing and intrasample errors.

In cooperation with the SBE, the Academy offers the students the opportunity to take the SBE Certified Broadcast Technology (CBT) exam at the end of the week.




The ABA Engineering Academy class of 2022.

While this course is designed for new engineers, seasoned engineers also attend for a refresher course in addition to learning about the latest technology (HD Radio, ATSC 3.0, digital audio workstations, etc.). The ABA Training Center has a fully functional multitrack digital recording studio set up for training.

Over the past 11 years, the ABA Academy has attracted students from across the country including Alaska and Canada. In addition to the week-long classes, engineering leaders from various companies have been a part of the Academy's special seminars and webinars covering subjects like ATSC 3.0, IP system designs and cyber security, digital audio processing, SMPTE-2110, digital audio workstations and ABIP inspector training.

The ABIP training seminar was requested by the FCC and is open to any engineer that wants to make sure their operation is in full compliant with current FCC rules.

All the activities offered by the ABA Engineering Academy are offered at no cost and underwritten by the ABA and corporate sponsors. Classes and seminars are held in Hoover, AL (Birmingham) and the monthly webinars are available via Zoom. For those interested in the classes and seminars but not able to attend in person, selected presentations are archived on the ABA Engineering Academy YouTube Channel (youtube.com/@abaengineering).

The Academy also publishes a weekly technical newsletter and monthly webinars on the third Tuesday. For complete information visit the Academy website (al-ba.com) or contact me. 



Answer from page 3

The answer is A

The power of an analog signal is always measured as peak power, which is the power level reached while transmitting the synchronizing pulses. The average power of an analog TV signal fluctuates widely with the brightness of the scene. The average power of a digital TV signal is independent of scene content, while the transient peak power is a statistical property of the datastream being transmitted. Most importantly, FCC rules require measurement of the average power of DTV signals.

SBE Certification Achievements

CONGRATULATIONS



LIFE CERTIFICATION

Certified Professional Broadcast Engineer (CPBE)
 Carl Dole, Williamsburg, IN - Chapter 25
 Steve Mankowski, Trabuco Canyon, CA - Chapter 47

Certified Broadcast Television Engineer (CBTE)
 David Boyer, Menifee, CA - Chapter 131
 Omar Pineda, El Paso, TX - Chapter 38

Certified Broadcast Networking Technologist (CBNT)
 Steve Mankowski, Trabuco Canyon, CA - Chapter 47

Certified Broadcast Technologist (CBT)
 Paul Hadley, Tucson, AZ - Chapter 9
 Patrick O'Gara, Las Vegas, NV - Chapter 128

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.

CERTIFIED PROFESSIONAL BROADCAST ENGINEER

Mark Clem, Jonesboro AR
 Matt Gholston, Lafayette, LA - Chapter 72
 Mohanad Faisal, Bethany, CT - Chapter 22

Applicants must have 20 years of professional broadcast engineering or related technologies experience in radio and/or television. The candidate must be currently certified on the Certified Senior Broadcast Engineer level.

FEBRUARY EXAMS

Certified Senior Television Engineer (CSTE)
 Richard Mall, Cedar Park, TX - Chapter 79

Certified Broadcast Networking Engineer (CBNE)
 Nicholas Clardy, Carencro, LA - Chapter 72

Certified Radio Operator (CRO)
 Raidin Bell, Vacaville, CA - Chapter 40
 Alisha Washington, Saratoga Springs, NY

Certified Television Operator (CTO)
 Josh Artman, Cambridge, MA - Chapter 11

ENNES WORKSHOP NEXTGEN EXAMS

ATSC3 Specialist
 John Collinson, New Port Richey, FL

Ched Keiler, Pompano Beach, FL
 Willie Perez, Scarborough, Ontario, Canada

Tim Stoffel, Reno, NV
 Fred Willard, Dunkirk, MD

NAB EXAMS

Certified Broadcast Radio Engineer (CBRE)
 Dustin Tatro, Abilene, TX

Certified Broadcast Television Engineer (CBTE)
 Michael Dela Cruz, Quezon City, Philippines

SPECIAL PROCTORED EXAMS

Certified Broadcast Networking Technologist (CBNT)
 Wallace Ayers, Indianapolis, IN - Chapter 25

Alabama Broadcasters Association
Certified Broadcast Technologist (CBT)
 John Brasfield, Quinton, AL - Chapter 68
 Richard Croft, Birmingham, AL - Chapter 68

Alabama Broadcasters Assoc. cont.
 Simeon Fields, Mena, AR
 Dalton Henry, Lake Charles, LA - Chapter 134
 Jessica Holderfield, Dothan, AL
 Raynell Jacobs, II, Gonzales, LA
 James Kelley, Vermillion, SD
 Connor McDonald, Wichita Falls, TX

Alabama Broadcasters Assoc. cont.
 Zackary Park, Jeffersonville, VT - Chapter 110
 Noah Roleson, Greenwood, IN
 Christopher Roth, Silver Spring, MD
 Dianna Strong, Dothan, AL
 Steve Vincent, Sacramento, KY
 David Woodward, Ada, OH

SBE CERTIFIED SCHOOL COURSE COMPLETION

Certified Broadcast Technologist (CBT)
DINFOS
 Caleb Bryan, Virginia Beach, VA - Chapter 54
 Leigha Truini, Fayetteville, NC - Chapter 147

CERTIFIED RADIO OPERATOR (CRO)

Conor Cary, Bronx, NY
 Matthew Hancock, Centennial, CO
 Josh Rodriguez, Centennial, CO
 Richard Spagnola, Babylon, NY

Killeen Independent School District
 Aiden Williams
 Diamyn Strong
 Kole Heinze

Cedar Ridge High School
 Jaxon Chandler
 Westin Cook
 Daniel Dunn
 Wes Gwaltney
 Ethan Hall
 Bryson Hill
 Isreal Hoosier
 Austin Jaco
 Chasity Mikeska
 Gabriella miranda
 Jesse Ozbun
 Dylan Richardson
 Ela Richey
 James Yates
 Alex Zehr

Southern Indiana Career and Technical College
 Riley Angel, Evansville, IN
 Chase Blythe, Evansville, IN
 Ashlyn DeVillez, Evansville, IN
 Brady Doninger, Evansville, IN
 Sam Harshbarger, Evansville, IN
 Trini Hines, Evansville, IN
 Haley Lance, Evansville, IN
 Caden Lindsey, Evansville, IN
 Ian Lewis, Evansville, IN
 Andrew Schaefer, Evansville, IN
 Robert Smith, Evansville, IN

CERTIFIED TELEVISION OPERATOR (CTO)

Justin Hinricks, Moscow, ID
 Cave City
 Hunter McCain, Cave City, AR
 MyKyla Potter, Cave City, AR
 Lynn Williams, Cave City, AR

Southern Indiana Career and Technical College
 Riley Angel, Evansville, IN
 Sophia Cherry, Evansville, IN
 Ashlyn DeVillez, Evansville, IN
 Brady Doninger, Evansville, IN
 Dylan Ellard, Evansville, IN

Southern Indiana Career and Technical College cont.
 Sam Harshbarger, Evansville, IN
 Trini Hines, Evansville, IN
 Haley Lance, Evansville, IN
 Caden Lindsey, Evansville, IN
 Ian Lewis, Evansville, IN
 Andrew Schaefer, Evansville, IN

RECERTIFICATION

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.

Certified Professional Broadcast Engineer (CPBE)
 Terry Douds, Lancaster, OH - Chapter 52

Certified Senior Radio Engineer (CSRE)
 Robert Kelley, Jr., Guam - Chapter 126

Certified Broadcast Networking Engineer (CBNE)
 Christopher Crump, Buford, GA - Chapter 5
 Andrew Hamann, Kennesaw, GA - Chapter 5

Certified Audio Engineer (CEA)
 Glenn Booth, Arvada, CO - Chapter 48
 Ted Nadasky, Milton, FL - Chapter 106
 Michael Jarnagin, Broken Arrow, OK - Chapter 56

Certified Video Engineer (CEV)
 Michael Jarnagin, Broken Arrow, OK - Chapter 56
 Ted Nadasky, Milton, FL - Chapter 106

Certified Broadcast Radio Engineer (CBRE)
 Joseph Portelli, West Pittston, PA - Chapter 2

Certified Broadcast Television Engineer (CBTE)
 Yezmin Blue, Tacoma, WA - Chapter 16
 Elmir Husetovic, Lombard, IL - Chapter 26
 Josh Kahn, Oakland, CA - Chapter 40
 Jason Liao, San Leandro, CA - Chapter 40
 Ronald Rockrohr, Gainesville, FL - Chapter 7
 Brian Wood, Vermillion, SD

Certified Audio Video Engineer (CEAV)
 David Erickson, Anchorage, AK - Chapter 89

Certified Radio Operator (CRO)
 Edwin Garcia, Burbank, CA

Certified Broadcast Networking Technologist (CBNT)
 Fuad Cuzmar, Albuquerque, NM - Chapter 34
 Mark Guralnik, Henderson, NV - Chapter 128
 Elmir Husetovic, Lombard, IL - Chapter 26
 Robert Kelley, Jr., Guam - Chapter 126
 Aaron Schaad, Lincoln, NE - Chapter 74
 Kevin Trueblood, Estero, FL - Chapter 90

Certified Broadcast Technologist (CBT)
 Robert Bertrand, Derwood, MD - Chapter 37
 Kate Crum, Bloomington, IN - Chapter 33
 Martin Gibbs, Pasco, WA - Chapter 51
 Tyler Godsman, Edmonton, AB
 Joshua Smith, East Longmeadow, MA - Chapter 11
 Richard Van Hoose, Medford, OR - Chapter 141

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sbe.org/pins





- A** SBE President Andrea Cummis presides over the SBE Membership Meeting on Monday evening.
- B** Blackmagic Design sponsored the Membership Meeting. Bob Caniglia, director of sales operations, Americas, for Blackmagic Design, makes some comments during the program. Near the conclusion of the meeting, a Blackmagic Design Studio Camera 6K Pro was awarded as a door prize.
- C** The SBE held a joint happy hour with beer and ice cream with the IEEE BTS and SMPTE on Tuesday.
- D** The SBE Board of Directors met on Sunday morning during the convention to discuss the ongoing business and operations of the society.

The SBE Thanks These Sustaining Members for Sponsoring Events at the NAB Show

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A tall, blue metal tower structure stands against a dramatic sunset sky. Two bright lights are mounted on the tower, illuminating the scene. The background shows a landscape with trees and a horizon line.

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LEGAL PERSPECTIVE

By Coe Ramsey, Patrick Cross and Noah Hock
SBE Regulatory Counsels
cramsey@sbe.org, prcross@sbe.org, nhock@sbe.org

Report from the NAB Show: The Future of ATSC 3.0

By all accounts, this year's NAB Show was a resounding success, with more than 65,000 in attendance showcasing the latest in technology and innovation driving the broadcast industry. One area of particular focus, both for broadcast and FCC attendees, was the ongoing roll-out of the ATSC 3.0 (also called NextGen TV) transmission standard. It has been around five years since the FCC first authorized ATSC 3.0 for voluntary deployment and to date the new standard is available in 69 markets covering more than 60% of the U.S. population. However, there has been increasing concern that the NextGen TV rollout could stagnate without renewed focus and dedication from regulators and the broadcast industry. For that reason, many are hopeful that the announcements and exhibitions made at the NAB Show will help reinvigorate interest in completing ATSC 3.0 deployment in the remainder of the country. It would be nearly impossible to cover all the NextGen TV innovations on display at this year's convention, but we would like to highlight a few important announcements and exciting new technologies in development.

FCC Announces Future of TV Initiative

FCC Chair Jessica Rosenworcel took the conference stage to announce a new public-private initiative led by the NAB and focused on the ATSC 3.0 transition. Dubbed "The Future of TV Initiative," this 3.0 task force will bring FCC staff together with stakeholders from various areas, including broadcasting, consumer electronics, and public

interest groups. Three working groups are expected to be convened, focusing on backward compatibility and consumer impact, technical conditions needed to complete the 3.0 transition, and the post-transition regulatory landscape. The Initiative was formed in response to calls from the NAB and others for the FCC to convene an ATSC 3.0 task force, and we are hopeful that it will provide a mechanism for identifying and addressing the remaining barriers to full adoption of NextGen TV.

Sinclair Announces Data Distribution Core Network

Sinclair Broadcast Group, which has been an advocate for and early adopter of ATSC 3.0, announced it is developing an "innovative and interconnected broadcast platform to provide commercial services and solutions for national data distribution." As you are no doubt aware, one of the primary benefits of the 3.0 standard is its datacasting capabilities, which opens entirely new opportunities for broadcasters to deliver myriad new services and products beyond their traditional over-the-air television signal.

The obvious next question, of course, is how will broadcasters take advantage of ATSC 3.0 datacasting? Sinclair is hoping to help by providing a foundational mechanism to help connect broadcasters with data users, and help broadcasters combine their available capacity to better meet market needs. The Data Distribution as a Service (DDaaS) platform would allow a broadcaster to offer its available data capacity and

combine that capacity with others in the market, to sell to providers of data services. For example, a company may need to deliver software updates to a large number of smart vehicles broadly dispersed over a wide area. Sinclair is hopeful that its DDaaS platform will allow the provider to utilize aggregated capacity from a range of broadcasters in a market—for a price, of course—to simultaneously deliver the needed data to a theoretically infinite number of devices. In this and many other ways, the DDaaS platform could provide an innovative way to address a wide range of data delivery needs while giving broadcasters a way to monetize their new ATSC 3.0 datacasting capability.

Advances in Public Safety

ATSC 3.0 datacasting is also being leveraged in a number of ways to improve public safety and emergency responsiveness—because the one-to-many structure of broadcast is often more resilient than wireless networks, the ability to quickly deliver vital information to devices in a targeted area amid an ongoing emergency may be one of the most important and promising new developments in 3.0. In just one example, PBS North Carolina, Triveni Digital and Device Solutions were awarded the prestigious NAB Technology Innovation Award for their proof of concept of a new emergency paging system, which uses ATSC 3.0 datacasting to simultaneously deliver large amounts of data to numerous receivers in order to quickly alert and inform first responders in a crisis.

Move Over GPS – Get Ready for BPS

It is likely that you use a global positioning system (GPS) on a daily basis. It has become a ubiquitous part of American life, from phones, to watches, to cars, and more. But the datacasting capabilities of ATSC 3.0 may soon allow broadcasters to offer a Broadcast Positioning System (BPS) to supplement or even replace traditional GPS. At this year's NAB Show, some of the developers of this technology presented a proof of concept showing how ATSC 3.0 can be used to combine data delivered from three or more 3.0 towers to map the precise positioning of the 3.0-compatible device receiving the signals. While there are technical hurdles to overcome, BPS technology could extend and bolster the effectiveness of GPS, particularly once ATSC 3.0 has been widely adopted across the country.

ENNES

EDUCATIONAL
FOUNDATION TRUST

The trust offers scholarship and educational programming and grants that benefit broadcast engineering and the broadcast engineer. Submit tax-deductible donations, payable to the Ennes Educational Foundation Trust, to the Society of Broadcast Engineers, 9102 N. Meridian St., Suite 150, Indianapolis, IN 46260.

Harold E. Ennes Scholarship

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Thomas Alderson, Spokane, WA
Thomas Hackett, Burke, VA
Martin Hadfield, Ocean Shores, WA
Robert Lacey, Jr., Methuen, MA
Karl Lahm, Rapid City, MI
Kate Landow, Denver, CO
H. Douglas Lung, Honomu, HI
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Richard Rudman, Santa Paula, CA
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John Tyler, Pawcatuck, CT

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Gregory Foss, Riverside, CA
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CONTRIBUTIONS

sbe.org/ennes



FOCUS ON THE SBE

By James Ragsdale
SBE Executive Director
jragdale@sbe.org

More Learning Opportunities

Do you have management responsibilities, leading a team, department, division, or your own company? Whether this responsibility came to you by choice or by assignment, do you ever wish you had the opportunity to learn more about leadership, team building, motivation, managing stress, and managing conflict? You may not realize it, but the SBE offers a course in Leadership each year that is a three-day, intensive course. The SBE Leadership Development Course, to be held in Atlanta, Georgia from Aug. 2-4, 2023, is equally beneficial for those who are already in management and for those without prior management or supervisory experience.

This highly interactive course will be challenging and rewarding, and includes training in the following areas:

- Understanding the Dynamics of Leadership
- CAPS Study: Discover Your Leadership Behavioral Style
- Communications
- Effective Motivation Techniques
- Building Winning Teams (team process and team advantage)
- Responsible Management
- Insights into Generational Differences
- Leadership is an Attitude
- Managing Conflict, Counseling and Discipline

This event challenges you to refine your

leadership skills as you better understand and improve how you interact with others. If you have the opportunity, bring a team and share the experience of this highly interactive event. Come, enjoy, learn and have some fun growing as a leader in the process.

The Instructor

Dr. Abram Walton is the founder of Ivory Bridge Group, a management consulting and training firm. He is also a full-tenured professor of management at Florida Tech, specializing in management and innovation. He serves as a U.S. Delegate for ISO 56000, on Innovation Management System standards and has been actively researching in the fields of innovation management, business analytics, and product lifecycle management for the past 20 years. He currently serves as the founding director of Florida Tech's Center for Innovation Management & Business Analytics (CIMBA). He has authored more than 100 publications and conference proceedings, and his textbooks on leadership and management have sold more than 15,000 copies.

Dr. Walton is a regularly invited speaker at national and international conferences. He received his Bachelor of Science in Management Information Systems at Northwest Nazarene University (2001), and his Masters

Attendees from the 2022 SBE Leadership Development Course offered their comments on the experience:

- "Just good stuff. The course helped me learn more about myself and equipped me with good information to make better decisions."
- "The content is applicable to my job and helped me to frame my thoughts and approaches around managing versus leading."
- "Dr. Walton is an excellent instructor. Good content and great personality — made the course material interesting."
- "I have already applied a lot of what I learned, mostly in how I deal with different employees and be more in control when I speak to fellow leaders."

of Science (2006) and Ph.D. (2009) in Technology, Leadership and Innovation at Purdue University. Before his academic life, he was a firefighter and EMT, and he later held leadership positions as a manager of Walmart stores.

Last year, since it was Dr. Walton's first time leading the SBE class, I attended all three days of the course. I have to say that I think Dr. Walton is one of the most enjoyable and interesting instructors I have ever seen. I am confident that you will find this course to be worth your investment. I remember hearing one of the attendees last year say that they just wished they could bring their own supervisor to the course.

NAB Show Kudos

I want to finish up this article by saying that I am so proud of the work of our Education Committee and particularly Fred Baumgartner, Geary Morrill, Jeff Welton, and SBE Education Director Cathy Orosz on the SBE Ennes Workshop at the NAB Show. They assembled an outstanding educational event that was held prior to the NAB Show. They designed an outstanding curriculum, assembled a cast of subject matter experts to present, and provided a great service to the broadcast engineering community.

The volunteer presenters were so knowledgeable. I learned a few things by being there that I can use to improve the experience for attendees in the future. If you attended this year, please encourage your friends to attend future such events so that we can continue to build the profession.

Society of Broadcast Engineers, Inc.

2022 Audited Financial Statements

Combined Statement of Assets, Liabilities and Net Assets* December 31 2022

ASSETS:

| | |
|---------------------------|--------------------|
| Cash and cash equivalents | \$385,523 |
| Investments | 1,359,767 |
| Property & Equipment, Net | 24,717 |
| Intangible Assets, Net | 360 |
| Total Assets | \$1,770,007 |

LIABILITIES and NET ASSETS:

| | |
|---|--------------------|
| Liabilities | \$18,359 |
| Net Assets | 1,751,648 |
| Total Liabilities & Net Assets | \$1,770,007 |



2022 SBE Revenue & Expense Statement

| | |
|---------------------------|--------------------|
| INCOME | |
| Membership Fees & Support | \$344,694 |
| Membership Services | 38,533 |
| National Meeting | 10,012 |
| Certification | 51,199 |
| Education Services | 134,750 |
| SBE Store/Book Store | 10,598 |
| Website | 7,045 |
| Frequency Coordination | 403,955 |
| Contributions | 7,488 |
| Net Investment Return | -204,116 |
| Interest | 29 |
| Total Revenue | \$804,187 |
| EXPENSES: | |
| Program Services | \$778,596 |
| Management & General | 286,066 |
| Total Expenses | \$1,064,662 |

| | |
|-----------------------|-------------|
| NET ASSETS 12/31/2021 | \$2,012,123 |
| NET ASSETS 12/31/2022 | \$1,751,648 |
| CHANGE IN NET ASSETS | \$-260,475 |

* CPA-conducted financial audit. SBE uses modified cash accounting method. Investments are listed at market value.



ENGINEERING PERSPECTIVE

By Bob Lefcovich
Founder and President, Instructor
Veteran's TV, Inc.
robertlefcovich@gmail.com

Veterans-TV Completes First Class of 2023

Veterans-TV is a non-profit, non-partisan organization located in Grass Valley, CA, that serves veterans throughout the country. Our program offers the most professional, real-time, hands-on TV production and post-production technical training available to veterans. VETV's mission is to help fill the gap in career training for those returning from service, and ultimately to improve the lives of veterans and their families. Our program is available to all applicants, with priority and scholarships going to veterans and their families, as well as a limited number of seats for non-veterans at a minimal fee.

From Feb. 6 through Feb. 17, 2023, Veterans-TV, with the support of Canon USA, held classes for seven veterans at the Canon facilities in Burbank, CA. The class, ENG/Video Journalism, focused on shooting, sound, lighting, and editing basics for short informative stories.



James B. tests a SteadiCam during class.

our students had access to Q&A sessions with seasoned professionals in the industry; Joe Lewis, an editor for Disney/ABC in Hollywood with 38 years' experience in the industry, and Steve Burch, former director of post-production for ABC, Hollywood, spoke of their experiences as newbies, and what they, as students, can look forward to. Additional Q&A sessions along with demonstrations of specialized equipment that the students may one day come in contact with, were introduced to the class by Nick Somera from SteadiCam, and Ginge Cox, CEO of Auburn Audio, who has been nominated for both Emmy and Grammy awards as a production sound mixer and re-recording engineer.

Humble Start

These students came to the class knowing a little about the basic workings of this genre, but what they didn't know they were eager to learn and soaked up information like sponges. I don't know if they can jump right into a working situation, but they are definitely prepared for entry level positions requiring any of these specific skill sets.

Students also left class with memberships in SMPTE and SBE, as well as a certificate of completion for the course. Corpo-

rate Sponsors of Veterans-TV include AJA Video, Blackmagic Design, NEP Group, and Telestream. Additional donors of equipment and services to VETV include; Abekas, Adder KVM, Adobe, AJA, Avid, Belden, Blackmagic Design, Boland, Calrec, Canare, Canon, Chyron, Cobalt Digital, Condition1, CueScript, Denecke, Dixon Sports, DNF Controls, Ensemble Design, Evertz, EVS, Fujifilm, Image Video, JLCopier, Klover Products, Kramer, K-Tek, Lance Design, LogicKeyboard, Manfrotto, Marshall, NAB, NEP, Netgear, NewTek, Pelican, Plura, Prompter People, PSSI, PTZ Optics, ReelData, Renegade Labs, Riedel, Ross Video, SBE, Scale Logic, Sennheiser Audio, Shure Audio, SMPTE, Sony Professional, TBC Consoles, Tektronix, Telemetrics, Telestream, Videndum, Vizrt, Wilson Electronics, Wohler, WWE, X-keys, and Zaxcom Wireless.

If you or someone you know might fit in with our organization, might like to become a corporate sponsor, or may wish donate their time and expertise as a guest at one of our upcoming classes, please contact VETV at veterans-tv.org.



VETV students learn about cameras during part of the class.

All but one of the students were from Southern California, which made commuting and lodging a non-issue. However, one of our vets was currently homeless, so we supplied a hotel room for him for the full two weeks of the course. Funds to make this room available were made possible by our corporate sponsors.

Due to the generous donation of equipment from so many of our supporters, our students were able to garner hands-on experience on the use of wireless microphones from Sony, SX 705 cameras from Canon, boom poles from K-Tek, Video Assist monitor/recorders from Blackmagic Design, Dell laptop computers donated by Grass Valley, tripods from Manfrotto, and a parabolic reflector from Klover Products.

Along with our prepared course work,



Classmates Armando, Joshua, James B., Ginge Cox, Juelz, James R., Jeremy are ready to pursue new careers in broadcasting with their new knowledge.

Have an topic or a project for the Engineering Perspective?
Send it to us.
cscherer@sbe.org

NEW SUSTAINING MEMBER



- | | | |
|--|---|--|
| <p>AC Video Solutions • 2014 Andrea Cummis 201-303-1303 Consulting, Systems Design/Integration</p> | <p>Dielectric • 1995 Cory Edwards 207-655-8131 Radio & TV Antenna Systems and Monitoring</p> | <p>Linkup Communications Corporation • 2017 Mark Johnson 703-217-8290 Satellite Technology Solutions</p> |
| <p>American Tower Corporation • 2000 Tiffany Yu 603-930-9091 Development/Construction/Management</p> | <p>Digital Alert Systems, LLC • 2005 Bill Robertson 585-765-1155 Emergency Alert Systems</p> | <p>LumenServe • 2023 Bear Poth 512-423-8323 Tower Lighting</p> |
| <p>BB&S Lighting • 2023 Tom Tuhas 800-820-6610 Manufacturer and Developer of High-end LED Lighting</p> | <p>DoubleRadius, Inc. • 2012 Jeffrey Holdenrid 704-927-6085 IP Microwave STL</p> | <p>LYNX Technik • 2007 Steve Russell 661-251-8600 Broadcast Terminal Equipment Manufacturer</p> |
| <p>Barnfind-USA, Inc. • 2021 George Gonos 919-748-7373 Fiber Transport Solutions</p> | <p>Drake Lighting • 2015 Dave Sheppard 270-804-7383 FAA Obstruction Lighting - Medium and High Intensity</p> | <p>MaestroVision • 2021 Claude Turcotte 888-424-5505 Broadcast Automation Software</p> |
| <p>Belden Electronic Division • 1991 Rose Lockwood 203-500-4743 Fiber and Copper Cabling Infrastructure</p> | <p>DTS Inc./HD Radio Technology • 2014 George Cernat 443-539-4334 HD Radio Technology</p> | <p>Markertek • 2002 Adam June 845-246-2357 Specialized Broadcast & Pro-Audio Supplier</p> |
| <p>Birns & Sawyer • 2022 Jim Alcantara 323-466-8211 Systems Integration, Sales, Rentals</p> | <p>du Treil, Lundin & Rackley, Inc. • 1985 Jeff Reynolds 941-329-6000 Consulting Engineers</p> | <p>Micron Communications Inc. • 2005 Jeremy Lewis 972-422-7200 Coordination Services/Frequency Planning</p> |
| <p>Blackmagic Design • 2012 Terry Frechette 408-954-0500 Production Switchers, Digital Cameras, Routers, Video Editing and Monitoring, Color Correction, Video Converters</p> | <p>The Durst Org. - 4 Times Square • 2004 Tom Bow 212-997-5508 TV/FM/Microwave Tower Site</p> | <p>Moseley Associates Inc. • 1977 Bill Gould 805-968-9621 x785 Digital STLs for Radio and Television</p> |
| <p>Bracke Manufacturing LLC • 2012 Patra Largent 949-756-1600 RF & Microwave Components</p> | <p>Econco • 1980 Debbie Storz 800-532-6626, 530-662-7553 New & Rebuilt Transmitting Tubes</p> | <p>MusicMaster • 2014 Jerry Butler 352-231-8922 Advanced Music Scheduling Solutions</p> |
| <p>Broadcast Depot • 2018 Tim Jobe 305-281-7540 TV, Satellite, Radio, IP</p> | <p>ENCO Systems Inc. • 2003 Samantha Bortz 248-827-4440 Playout and Automation Solutions</p> | <p>Nascar Productions • 2014 Abbey Kielcheski 704-348-7131 Live/Post Production Services</p> |
| <p>Broadcast Devices, Inc. • 2015 Robert Tarsio 914-737-5032 Audio/RF Support Products</p> | <p>ERI - Electronics Research • 1990 Zachary Bailey 812-925-6000 Broadcast Antennas, Transmission Line, Filters/Combiners, Towers and Services</p> | <p>National Association of Broadcasters • 1981 Industry Trade Association 202-429-5340</p> |
| <p>Broadcast Electronics Inc. • 1978 Perry Priestley 217-224-9600 Radio Equipment Manufacturer</p> | <p>Floral Systems • 2008 Shawn Maynard 877-774-1058 Television Broadcast Automation</p> | <p>National Football League • 1999 Raiph Beaver 813-282-8612 Game Day Coordination Operations</p> |
| <p>Broadcast Software International • 2016 Maure Summers 541-333-8588 Radio Automation, Audio Logging</p> | <p>GatesAir • 1977 Mark Goss 512-453-3710 Radio/TV Transmitters, STL Codecs</p> | <p>Nautel Inc. • 2002 Jeff Welton 877-662-8835 Radio Broadcast Transmitter Manufacturer</p> |
| <p>Broadcast Supply Worldwide • 1986 Shannon Nichols 800-426-8434 Audio Broadcast Equipment Supplier</p> | <p>Heartland Video Systems, Inc. • 2011 Dennis Kias 920-893-4204 Systems Integrator</p> | <p>Nemal Electronics Int'l Inc. • 2011 Benjamin L. Nemser 305-899-0900 Cables, Connectors, Assemblies and Fiber Optic</p> |
| <p>Broadcasters General Store • 2004 Shane Finch 352-622-7700 Broadcast Audio Video Distributor</p> | <p>Hilights, Inc. • 2016 Timothy Nash 352-564-8830 Obstruction Lighting Maintenance</p> | <p>Neutrik USA, Inc. • 2012 Fred Morgenstern 704-916-0368 Ruggedized Optical Fiber Systems</p> |
| <p>Burk Technology • 2019 Matt Leland 978-486-0086 x703 Transmitter Facility Control Systems</p> | <p>Hitachi Kokusai Electric Comark • 2013 Jack McAnulty 413-998-1523 Manufacturer Broadcasting Transmission Equipment</p> | <p>Orban Labs, Inc. • 2011 Mike Pappas 480-403-8300 Audio Processing AMFMTV</p> |
| <p>Calrec Audio • 2016 Helen Carr 703-307-1654 Audio Mixing Equipment</p> | <p>Indiana Broadcasters Association • 2019 Dave Arland 317-701-0084 Indiana Association for Radio & TV Broadcasters</p> | <p>Potomac Instruments • 1978 Zachary Babendreier 301-696-5550 RF Measurement Equipment Manufacturer</p> |
| <p>Cavell, Mertz & Associates Inc. • 2011 Gary Cavell 703-392-9090 Consulting Services</p> | <p>Inovonics Inc. • 2012 Gary Luhrman 831-458-0552 Radio Broadcast Equipment</p> | <p>ProAudio.com - A Crouse-Kimzey Co. • 2008 Mark Bradford 800-433-2105 x560 Proaudio Broadcast Equipment Distributor</p> |
| <p>Comrex Corporation • 1997 Chris Crump 978-784-1776 Audio & Video Codecs & Telephone Interfaces</p> | <p>Jampro Antennas Inc. • 2011 Alex Perchevitch 916-383-1177 DTV, FM-HD Radio, DVB-T/T2, ISDB-T, DAB</p> | <p>Propagation Systems Inc. - PSI • 2010 Doug Ross 814-472-5540 Quality Broadcast Antenna Systems</p> |
| <p>Continental Electronics • 1976 Dale Dalesto 412-979-3253 TV and Radio Transmitters</p> | <p>Kathrein USA Inc. • 1985 Les Kutasi 541-879-2312 Antennas for Broadcasting & Communications</p> | <p>Quintech Electronics and Communications Inc. • 2002 James Herbstritt 724-349-1412 State-of-the-art RF Hardware Solutions</p> |
| <p>Crawford Broadcasting Company • 2021 Cris Alexander 303-481-1800 Media Company</p> | <p>Kintronc Labs, Inc. • 2015 Brad Holly 423-878-3141 Radio Broadcast Antenna Systems - ISO9001 Registered Company</p> | <p>QVC • 2011 Kevin Wainwright 484-701-3431 Multimedia Retailer</p> |
| <p>CueScript • 2014 Michael Accardi 203-763-4030 Teleprompting Software & Hardware</p> | <p>Iatakoo • 2021 Paul Adrian 214-683-0791 Media Workflow Automation</p> | <p>Rohde & Schwarz • 2003 Walt Gumbert 724-693-8171 Transmitters, Test & Measurement, Video</p> |
| <p>Cumulus Media, Inc. • 2021 Conrad Traumann 212-419-2940 Audio Media Company</p> | <p>LBA Technology Inc. • 2002 Jerry Brown 252-757-0279 x228 AM/MW Antenna Equipment & Systems</p> | <p>Ross Video Ltd. • 2000 Jared Schatz 613-228-0688 Manufacturer, Television Broadcast Equipment</p> |
| <p>Davicom, Division of Comlab, Inc. • 2014 Louis-Charles Cuierrier 418-682-3380 x512 Remote Site Monitoring and Control Systems</p> | <p>Sage Alerting Systems Inc. • 2010 Harold Price 914-872-4069 x113 Emergency Alert Systems Products</p> | <p>SCMS Inc. • 2000 Bob Cauthen 800-438-6040 Audio and RF Broadcast Equipment Supplier</p> |
| | | <p>Shively Labs • 1996 Dale Ladner 888-SHIVELY FM Antennas & Combiners</p> |
| | | <p>Shure Incorporated • 2012 Bill Ostry 847-600-6282 Microphones, Wireless Systems, Headsets</p> |
| | | <p>Sierra Automated Systems and Eng. Inc. • 2011 Al Salci 818-840-6749 Routers, Mixers, Consoles, Intercoms</p> |
| | | <p>Staco Energy Products Co. • 2010 Paul Heiligenberg 937-253-1191 x128 Manufacturer of Voltage Regulators, UPS</p> |
| | | <p>SuiteLife Systems • 2019 Nigel Brownnett 310-405-0839 Manage. Monitor. Control</p> |
| | | <p>Sutro Tower Inc. • 1989 Raul Velez 415-681-8850 Broadcast Tower Leasing</p> |
| | | <p>Synthax Inc. • 2020 Brittany Hilton 754-206-4220 Audio Codecs and Converter Solutions</p> |
| | | <p>TBC Consoles • 2023 Jansen Hahn 631-293-4068 Technical Furniture for Broadcast/AV</p> |
| | | <p>Technical Broadcast Solutions, Inc. • 2018 Robert Russell 302-414-0055 Engineering and Consulting Services</p> |
| | | <p>Televue USA, LLC • 2021 Andy Ruffin 937-475-7255 Antennas Transmitters Measurement Distribution</p> |
| | | <p>Telos Systems/Omnia/Axia • 2003 John Bisset 216-241-7225 Talk-Show Systems</p> |
| | | <p>Teradek • 2011 Jon Landman 949-743-5783 Camera-top ENG Solutions</p> |
| | | <p>Tieline The Codec Company • 2003 Dawn Shewmaker or Jacob Daniluck 317-845-8000 Audio Codec Manufacturer</p> |
| | | <p>Unimar Inc. • 2001 Thad Fink 315-699-4400, 813-943-4322 Tower Obstruction Lighting Designer, Manufacturer, Distributor</p> |
| | | <p>Vizrt Group • 2022 Anne Hrubala 917-771-8330 More Stories. Better Told.</p> |
| | | <p>Wheatstone • 2010 Jay Tyler 252-638-7000 IP Consoles, Routers & Processors</p> |
| | | <p>WideOrbit • 2012 Brad Young 415-675-6700 Radio Automation and Playout</p> |
| | | <p>Wireless Infrastructure Services • 2006 Travis Donahue 951-371-4900 Repacking Services - West Coast Turnkey Services</p> |

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

Member Spotlight: Davit Robakidze

Member Stats

SBE Member Since: 2022
Employer: Innovator LLC
Position: CTO
Location: Tblisi, Republic of Georgia
Chapter: 148 Eastern Europe
I'm Best Known For: Being an architect of broadcasting systems.

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

A The opportunity for teaching and professional development.

Q What got you started in broadcast engineering?

A Broadcasting systems in Eastern Europe are less developed than in Central Europe or in the US. I was always bothered by the fact that I had to watch very poor-quality on TV. While foreign broadcasts were high-quality SD or were already beginning to broadcast HD, we had analog and cassettes. I wondered what caused this low



When he's not working, Davit is often skiing on the mountain slopes in Georgia. That's really him behind the goggles.

quality and how it could be fixed. During my work, I personally helped many TV stations

tronic music and play it with friends.

to switch from SD to HD, and to switch from analog to digital broadcasting.

Q What do you like most about your job?

A Often, family members do not understand what I do. When I start to explain it is very foreign to them and everyone listens attentively. It's kind of a charm for me.

Q When I'm not working I...

A ...love to ski. The photo here is of me in the Georgian mountains.

Q What's your favorite gadget?

A DJ mixing controller. I often write elec-

Become an SBE Subject Matter Expert

Do you have a specific area of expertise? Is it something you could share with others who are new to the field? If so, then become an SBE Subject Matter Expert (SME) mentor.

While one-on-one mentors provide a broad base of information to mentees, there are times when mentees may need guidance in a more specific area. With this, The SBE

Mentor program introduces a new Subject Matter Expert (SME) mentor. SMEs provide support to one-on-one Mentors offering specific expertise outside of the primary Mentor's experience.

Like primary Mentors, SMEs must be current SBE members and in the profession of broadcast engineering. They must have a willingness to share their knowledge and a positive attitude to help with the professional development of others.

Current Mentors can operate both as a "regular" mentor and an SME. Mentees can also participate as an SME if they have an area of expertise that they would like to share.

You do not have to currently be participating in the SBE Mentor program – you can offer your services in this new role. With the new SBE SME program, Everyone Can Be A Mentor! Apply Today! Get more information: sbe.org/mentor

Renew Membership by June 30

When you renew your SBE membership on time, you retain all your member benefits without interruption. But if you have not yet renewed, you need to do so today. While renewals were due April 1, you are now in the grace period. If you don't renew by June 30 (the end of the grace period), you will be dropped from the active roll.

Renew online at sbe.org. Click on "Renew Membership" at the top of the website home page. Mobile users can find it in the hamburger drop-down menu. The online system is available

24/7, is secure and accepts Visa, MasterCard and American Express.

When renewing, consider upgrading to SBE MemberPlus. SBE MemberPlus provides you with access to all archived and all new Webinars by SBE. And if you are a Student or Life Member, you can take advantage of SBE MemberPlus, too. Adding MemberPlus gives you full access to all the Webinars by SBE.

Questions about renewal? Contact Scott Jones at the SBE National Office at 317-846-9000 or kjones@sbe.org.

Thanks for participating in the SBE Compensation Survey

If you took a few minutes to respond, thank you. If you didn't participate, we hope you will next year.



The results will be compiled and made available soon. It's free to SBE members as a member benefit.

Thank You Membership Drive Recruiters

The annual SBE Membership Drive concluded at the end of May. If you recruited a new member during the Drive, **thank you!**

The prize drawing for recruiters will be held this month. All the recruiters also earned a discount on their 2024 SBE dues. You also helped grow the society and helped someone's career.



WELCOME TO THE SBE

NEW MEMBERS

Peter Allen - Middleton, WI
 Negatu A. Asefa - Addis Ababa, Ethiopia
 Nahom D. Ayalew - Addis Ababa, Ethiopia
 Wallace Ayers - Indianapolis, IN
 Emmanuel Ayodele - Abule Egba, Lagos
 Richard Bakos - South Bend, IN
 Jeffrey A. Barrett - Pebble Beach, CA
 Kenneth A. Barrett - Spokane, WA
 Fitzroy Beeker - Boynton Beach, FL
 Jeff T. Bullard - Prosperity, SC
 Benjamin G. Burriss - Lexington, SC
 Dena Cardonick - St. Petersburg, FL
 William B. Carter - Albuquerque, NM
 Gabriel A. Castro - Kissimmee, FL
 Henry Cohen - Ossining, NY
 Luke R. Crafton - Valrico, FL
 Richard L. Croft - Birmingham, AL
 Chiril Cudinov - Chisinau, Republic of Moldova
 Paul D. Dankoski - Chatham, IL
 Kellen M. Dean - Carter Lake, IA

Brian W. DePalo - Colorado Springs, CO
 Geoff Dunbar - Arcadia, CA
 Martin V. Dunn - Centerton, AR
 Daniel R. Feely - Pasadena, CA
 Brandon K. Ferguson - Martinez, GA
 Duncan Fowler - Asheville, NC
 Alexander T. Fraser - Waco, TX
 Owen C. Gambrell - North Augusta, SC
 Tsegaye A. Gebretsahma - Addis Ababa, Ethiopia
 Tyrone C. Gittens - Columbia, MD
 Dana Hamblin - Broken Arrow, OK
 Christopher L. Hamilton - Wheat Ridge, CO
 Courtney Hardy - Akron, OH
 Fahad Hasan - Dubai, AE
 Dalton J. Henry - Lake Charles, LA
 Christopher M. Higham - East Moline, IL
 Ryan P. Hill - Raymond, NH
 Justin Hinrichs - Moscow, ID
 John G. Holst - Davenport, IA
 Ryan JM Horacek - Darien, IL

Cory Isemann - Glen Allen, VA
 Joselito I. Jopson - Quezon City, Philippines
 James S. Kelley - Vermillion, SD
 Kayleigh M. Kenyon-McDade - Murrieta, CA
 Michael R. Kerr - Alderly, QLD, Australia
 Joe M. Kripal - Omaha, NE
 Aleksander Kurlej - Bozeman, MT
 Kristina Lett - Omaha, NE
 Roo Linton - Rochester, NY
 Scott Lipetzky - Sioux Falls, SD
 Juan A. Lozano - Laredo, TX
 Dan Merwin - Denver, CO
 Bradley Minnis - New Castle, IN
 Nail A. Muhammad - Tampa, FL
 James B. Nelms - Sylvester, GA
 Elias A. Nigussie - Addis Ababa, Ethiopia
 Malek Pallie - Duarte, CA
 Zackary G. Parik - Jeffersonville, VT
 Wyatt Peake - New York, NY
 Alan Ray - Columbia, SC

Michael Reed - Vineyard Haven, MA
 Christopher M. Roach - Luzerne, PA
 Marty Shafer - Royal Oak, MI
 Loren Sherman - West Bloomfield Township, MI
 Joseph R. Stanfill - Spokane, WA
 Michael A. Stevens - Avon, IN
 Tyler M. Swenson - Hot Springs, MT
 Adrian Teberneac - Chisinau, Republic of Moldova
 Calvin Thurmond - Shreveport, LA
 Carlos S. Tolentino - Brisbane, CA
 Leigha M. Truini - Fayetteville, NC
 Jimmy Vance - Houston, TX
 John Michael M. VanRoy - Miami, FL
 Kenneth L. Vrazel - Yuba City, CA
 Scott A. Wallace - Lexington, KY
 Saleem Warsi - Riverview, FL
 Darran Weeks - Parma, MI
 William T. Winger - Twin Falls, ID
 Seth A. Wyberg - Missoula, MT
 Drew Yount - House Springs, MO

RETURNING MEMBERS

Mohammed Abdelrahim - Richardson, TX
 Steven Allen - Vashon, WA
 John W. Allison - Arlington, TX
 Joseph B. Belton - Brandywine, MD
 Albert L. Brown - San Diego, CA
 David Cardoza - Monterey, CA
 Thomas W. Cline - Richmond, VA
 Ethan S. Dayton - Corrales, NM
 Joseph E. Dziok - Warren, MA
 Vernon E. Egli - Lagrange, IN
 Loni Fiscus - West Orange, NJ
 Thomas H. Ford - Mt. Olive, NC

Lee E. Griffin - St. Petersburg, FL
 Joshua Harstad - Seattle, WA
 Daniel F. Hogan - Bloomington, MN
 Michael W. Jackson - Sugar Hill, GA
 Russ Johnson - Nashville, TN
 Kody Joiner - St. Petersburg, FL
 Chad M. Kelley - Santa Ana, CA
 Tom Lawler - Pittsburgh, PA
 Daniel L. Mammone - Charleston, WV
 Timothy A. Meier - Bakersfield, CA
 James R. Mertins - Sand Springs, OK
 Donald R. Ohse - Wellston, OK

Ryan S. Phillips - Duluth, MN
 Michael J. Politoski - Hickman, TN
 Chase W. ReBarker - Washington, DC
 Marshall A. Rice - Troy, IL
 Jonah R. Riner - Vidalia, GA
 Marc E. Roost - Omaha, NE
 Nathan W. Russell - Chicago, IL
 Edick Safarians - Burbank, CA
 Jeff Sata - Indio, CA
 John P. Schlusser - Poughkeepsie, NY
 David B. Smith - Clarksville, IN
 Huascar P. Sousa - Santo Domingo, Dominican Republic

Karim S. Springer - Rahway, NJ
 Nicholas A. Thompson - Oklahoma City, OK
 Nelo D. Toriaga - Troy, NY
 Jaime A. Uranga - Sugar Land, TX
 Gerald W. Urban - Alden, NY
 Corey J. Walters - Jersey City, NJ
 Stephanie Weil - Cleveland, OH
 Bruce Wilde - West Seneca, NY
 Mitchell J. Worby - Tacoma, WA
 Kevin G. Wright - Cincinnati, NY

NEW STUDENT MEMBERS

Akshata S. Bhagavath - Long Beach, CA
 Tyler A. Huyser - Evansville, IN

Jeremy A. McCree - Sun Valley, CA
 Jesus Morales - San Pedro, CA
 James Ristuccia - Palmdale, CA

Armando E. Vegas - Venice, CA
 Julia A. Velasquez - Sylmar, CA

In Memorium

Winston D. Hawkins - Blacksburg, VA

Photos from the NAB Show



A The SBE booth was a hub of activity. | **B** The SBE Member Reception, held Monday evening, was a chance to socialize and relax. | **C** The SBE Ennes Workshop RF101 Boot Camp brought in more than 30 attendees. | **D** The SBE Ennes Workshop ATSC 3.0 NextGen Broadcast track had more than 60 attendees. Both Ennes Workshop tracks spanned two days.

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MEMBERS ON THE MOVE



▶ **Conrad Trautmann**, CPBE, chief technology officer of Cumulus Media, has been appointed to serve a two-year term on the NAB Radio Board of Directors.

▶ **Henry McKelvey** is a NextGen TV systems engineer with Sinclair Broadcast Group, Cockeysville, MD.

Harvey Arnold, CPBE, is senior VP of engineering, Sinclair Broadcast Group.

Derek Murphey, CBRE, CBT is network production software manager for Northwestern Media.



▶ **Andrew Kennedy**, CBTE, CBNE, is chief engineer of WSAW/WZAW/WYOW, Wausau, WI.

▼ **John-Erick Rempillo**, CPBE, is a senior remote area transmitter technologist, technology and infrastructure, at CBC/CBC Radio Canada, Toronto.

Justin Williamson is the chief engineer at WTNH, New Haven, CT.

Joe Myers, CBT, is director of sales, and

Christopher Roth is sales manager for wireless connectivity, for the MaxxConnect Group.



MARK YOUR CALENDAR

S M T W T F S

SBE Certification Exams *Local Chapters*
 June 2-12, 2023 sbe.org/certification
Application deadline closed

SBE Awards Nominations Deadline
 June 15, 2023 sbe.org/awards

SBE WEBxtra *online*
 June 19, 2023 sbe.org/webxtra

SBE WEBxtra *online*
 July 17, 2023 sbe.org/webxtra

SBE Certification Exams *Local Chapters*
 Aug. 4-14, 2023 sbe.org/certification
Application deadline June 16, 2023

SBE Leadership Development Course *Atlanta*
 Aug. 2-4, 2023 sbe.org/ldc

SBE WEBxtra *online*
 Aug. 21, 2023 sbe.org/webxtra

SBE Election Ends
 Aug. 15, 2023 sbe.org

Have a new job? Received a promotion? Send your news to [Chriss Scherer at cscherer@sbe.org](mailto:cscherer@sbe.org).

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