# The Society of Broadcast Engineers



# Fox Valley Wisconsin SBE Chapter 80

PO Box 1519 Appleton, WI 54912-1519

January 2024

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Our website <a href="mailto:sbee0.org">sbe80.org</a>
Twitter: @sbechapter80

## **Monthly Meeting for January**

We will not be having a formal meeting this month as it is our annual Holiday Social and Dinner event at the Out O' Town Club. Our social hour begins at 5:30pm with dinner at approximately 6:30pm. Join us for what should be some good conversation, great food, and hopefully some fun. We look forward to seeing you and your guest there on Tuesday, January 16<sup>th</sup>. Note that our January holiday social and dinner will not be offered via zoom.

### **Chairman's Corner**

I hope everyone is surviving the brutal winter weather we have been experiencing lately. Maybe it's just me but winter seems to be arriving later and later each year and lasting longer into what is supposed to be spring. Please be safe in your travels to and from your transmitter sites and stations.

A reminder that we are looking for a Program Chairman as John Pfankuch has stepped down from the position. John did a great job finding programs for us for many years. If you are interested in filling this vacancy, please reach out to myself or one of our chapter officers. Also, if you have a program idea or possibly an idea for a tour someplace, please let us know. Our next business meeting will take place on Tuesday, February 20<sup>th</sup> at the Out O' Town Club beginning at noon. More information on that will be coming your way early February along with a Zoom link for the meeting.

If anyone would like to see the January financial report, you can contact myself or Steve Brown and we will get you that information. Our chapter financial records are available for viewing by any Chapter 80 member in good standing upon request.

Please stay safe in the "wonderful" winter weather we are experiencing, and I look forward to seeing as many members and guests as possible on Tuesday, January 16<sup>th</sup>!

Matt Converse, Chaiman Chapter 80, Fox Valley

### **Upcoming Dates**

SBE Certification Dates		
Exam Date(s)	Location	Application Deadline
Feb. 2-4, 2024	Local Chapters	Jan. 3, 2024
April 16, 2024	NAB Show Las Vegas	March 1, 2024
June 7-17, 2024	Local Chapters	April 26, 2024
Aug. 2-12, 2024	Local Chapters	June 14, 2024
Nov. 1-11, 2024	Local Chapters	Sept. 6, 2024

*Tuesday, January 16<sup>th</sup>* – SBE Chapter 80 Holiday Social, Out-O-Town Club, 5:30pm social, 6:30pm dinner

### <u>Applied RF Basics – Module 3 – VHF/UHF Television Systems</u> *January 18, 2024* | *2 p.m. ET*

The four-part *Applied RF Series* continues with *Module 3 – UHF/VHF Television Systems*. Session three moves into the television spectrum to look at VHF/UHF broadcast. There will also be significant discussion on ATSC 3.0 – but realize there are already plenty of courses about that topic, so in this webinar, we will focus more on the RF aspect such as generating the signal, broadcasting the signal, and what can be done to optimize coverage – height versus antenna gain, maximizing MER, and what that means and similar topics.

Instructors
Jeff Welton, CBRE, Nautel
Gary Cavell, Cavell Mertz & Associates, Inc.

# Spectrum Analysis and the Use of the Spectrum Analyzer in Radio Broadcasting January 25, 2024 | 2 p.m. ET

This presentation goes over the various uses and applications of the spectrum analyzer as it relates to radio broadcast engineering. The fundamentals of spectrum analysis and troubleshooting of systems will be covered. Other topics included in the discussion include: time domain vs. frequency domain and proper use and handling of a spectrum analyzer and applications of spectrum analysis in radio broadcasting, identification of system problems, and issues, regulatory compliance topics, new transmitter installation proofing, vector network analyzer (VNA), time domain reflectometry (TDR), and power measurement including out of band emissions (OOBE).

Whether the engineer performs the measurements themselves or utilizes an outside contractor/service provider to do so, understanding the information that can be unlocked through spectrum analysis is fundamental to engineers in today's broadcast industry.

Instructor
Greg Buchwald, Motorola

### Why Worry About Your Air Chain?

February 8, 2024 | 2 p.m. ET

Upon reviewing AM and FM air chains in large and small markets, a plethora of issues can be discovered. Not only do these problems negatively impact audio quality, but they also affect Nielsen PPM encodability!

Inevitably, air chains degrade over time and for many reasons. Equipment, formats, and other conditions can change. Analog to digital conversions (or digital to analog) happen. Variables that you might not even consider may have been introduced to the air chain over the years. This module will go over ways you can monitor and prepare for catastrophe with your air chain.

#### Instructor

Mike Pappas, Field Engineer and VP of Business Development, Orban

### <u>Applied RF Basics – Module 4 – UHF and Above: Microwave Systems and Satellite</u> Systems

February 15, 2024 | 2 p.m. ET

The four-part Applied RF Series concludes with **Module 4 – UHF and Above: Microwave Systems and Satellite Systems**. In session four, we go from MHz to GHz and look at the *really* high frequencies. At this wavelength, a drop of rain can act as an attenuator. In this session, we'll try to answer: What can be done to maximize reliability? How can redundancy be built in? What are the options for most improved performance?

Instructors
Jeff Welton, CBRE, Nautel
Gary Cavell, Cavell Mertz & Associates, Inc.

Link to the SBE WEBSITE

# **Chapter 80 Elected & Appointed Officers**

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Secretary
Treasurer
Program Chairman
Membership Chairman
Sustaining Membership
Frequency Coord. < 2 GHz
Frequency Coord. > 2 GHz
Chapter Liaison
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