



The Society of Broadcast  
Engineers and  
SBE Chapter 38 present an  
**Ennes Workshop**  
Friday, June 9, 2023  
9 a.m. to 5 p.m.

at the  
**Wyndham El Paso Airport**  
**2027 Airway**  
**El Paso Texas 79925**

**Topics include:**

- **NextGen Broadcast is Radio Too**
- **Real Radio Hosts Working Virtually**
- **Last-Mile Solutions for Cloud-Based Broadcasting**
- **The Future of Seamless Workflows & Cloud-Based Journalism**

**Registration:**

**SBE Members: \$50**  
**Non-members: \$60**

*Continental breakfast and lunch included*

**Register at**  
**[sbe.org/Ennes\\_EIPaso](http://sbe.org/Ennes_EIPaso)**



**Society of Broadcast Engineers**  
**9102 N. Meridian St, Ste 150**  
**Indianapolis, IN 46260**

## What is an Ennes Workshop?

# ENNES

## EDUCATIONAL FOUNDATION TRUST™

The Ennes (pronounced "ENN-ess") Workshops were created in 1991 through the Ennes Educational Foundation Trust in an effort to bring affordable education to members locally. The Ennes Educational Foundation Trust, through its Education Foundation Committee, offers periodic workshops and seminars around the United States. These programs feature multiple topics and speakers that provide television and radio engineers with the latest information in broadcast and media technology.

### **About the Ennes Educational Foundation Trust**

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.

Over the years, the purposes of the Trust were expanded. In addition to granting scholarships, the Trust now is involved with the funding and presentation of broadcast engineering-related educational programs, seminars and workshops. It also helps to underwrite costs associated with publishing technical books and manuals.

# SBE Ennes Workshop • El Paso, TX

June 9, 2023

Planned presentations

Time	Topic/Event	Speaker
	<b>Virtual Everything – Preparing for a Life in a Hyper-Connected World</b> There's no secret that broadcast facilities are fast being exposed to virtual environments – control surfaces, processing, even HD generation and content delivery are all being virtualized, containerized and available for consumption on your laptop, in locally hosted servers, or offsite in cloud-based platforms ranging from Amazon to Azure and all points in between. In this session, we'll discuss things to be aware of, how virtualization can provide unprecedented reliability and redundancy – and how it can also leave you hanging out to dry with single points of failure if care isn't taken in the implementation process. We'll also look at hardening the network as a more connected facility is one that becomes more susceptible to ransomware, malware and all the less savory aspects of the World-Wide-Web.	<b>Jeff Welton, CBRE Nautel</b>
	<b>NextGen Broadcast is Radio Too</b> NextGen Broadcast enabled by ATSC 3.0 is as much radio as it is TV. The first NextGen transmissions now reach most of our population. NextGen Broadcast's OFDM on UHF "beach front property" spectrum outperforms our current medium wave and low-VHF radio spectrum dramatically. With on-channel boosters, the over-the-air signal will seamlessly penetrate deep into buildings, transportation, and venues where AM and FM can't reach. NextGen Broadcast also allows radio the opportunity to access more data space, allowing radio to move beyond simple text and album art to more interactive and personalized audio services. Highly beneficial is that most NextGen broadcast devices have built in capability to return listener data in real time. Even more important is that the things we can now only do with streaming and digital distribution – dynamic ad insertion, richer content beyond album art and text, customized and subscription services – we will be able to do without the friction and impairments that are inherent on the Internet, as part of the NextGen Broadcast ecosystem.	<b>Fred Baumgartner, CPBE, ATSC3, CBNT</b>
	<b>Real Radio Hosts Working Virtually - How Real Humans Work with Containerized Broadcast Systems</b> Containerized broadcast systems are now on-the-air in a variety of radio stations. What must engineers know about this technology, and are the human on-air users adapting? Radio broadcasters have been anticipating their eventual deployment of virtualized broadcast software as part or most of their studio and backend infrastructure. A few radio stations and radio networks have already moved to a largely virtualized infrastructure while others are now in the process. The virtues of virtualization have been the topic of several dozen professional presentations ranging from manufacturers' revelations to scholarly presentations. With some systems on-air now, it's time to ask, "What is working differently or the same - for broadcast engineers and for on-air talent?" This SBE Ennes Workshop presentation asks that question and presents answers from broadcast engineers, broadcast IT professionals, and on-air talent.	<b>Kirk Harnack Telos Alliance</b>
	<b>Last-Mile Solutions for Cloud-Based Broadcasting</b> We all know that operating cloud-based automation and playout systems, along with audio processing, is a relatively easy project. But getting from the "Cloud" to an FM or AM transmitter site reliably, especially with last-mile issues of low bandwidth (or no bandwidth), is a significant issue. This session will look at a myriad of cloud to transmitter link solutions including a pair of real life examples using "unconventional" delivery methods.	<b>Mike Pappas Orban</b>
	<b>The Future of Seamless Workflows &amp; Cloud-Based Journalism</b> From the moment a reporter is assigned a story, to the second the content is published on-air or online -- the entire team and the technology they're using should be in sync every step of the way. This is a world that can and does exist. Learn how interoperability and automated integrations can give teams more time to focus on storytelling, and provide a massive return on investment.	<b>Erin Cargile Iatakoo</b>

Schedule subject to change. Need hotel accommodations? Contact [corosz@sbe.org](mailto:corosz@sbe.org).

Register now at [sbe.org/Ennes\\_EIPaso](http://sbe.org/Ennes_EIPaso)