

## Ohio October 2019

**T**he Section meeting on 24 October took place along with the local Society of Broadcast Engineers (SBE) Chapter 52, at the WSYX-Sinclair Television lot in Columbus, OH, with 40 members and guests in attendance.

Ohio Section Chair and SBE Chapter 52 Chairman, John Owen from Q Communications, LLC, was the guest speaker for the meeting. Owen's two-part presentation first covered an overview/history of the Columbus, TV station, WSYX-TV (formerly WTVN-TV), now celebrating its 70-year anniversary within the Columbus TV market. That history included the "Channel 6" story with their red-letter engineering events such as:

- the launching of the first of several TV transmission plant locations,
- the launching of their first network and local live color/studio facilities,
- the various multichannel audio format transitions, and
- the transition to Digital terrestrial broadcast service, to name a few.

In the second part of the presentation, Owen provided an overview of the activities at Q Communications pertaining to the current "repacking" of the frequencies of different TV stations around the U.S. He outlined the various technical and logistical issues that some TV stations have faced so far, in implementing such a massive national move to new spectrum frequency/channels, now mandated by the Federal Communications Commission, within



John Owen, guest speaker at the October Ohio Section meeting.

each U.S. TV market. A lively Q&A session followed.

—Gene Batey  
Secretary/Treasurer

## Pittsburgh October 2019

**S**MPTE Pittsburgh Section members and guests received a tutorial on the challenges faced in transitioning from an serial digital interface (SDI)-based plant and genlock synchronization to Internet Protocol (IP)-based transport and Precision Time Protocol (PTP) for synchronization.

The meeting on 4 October was hosted by NEP at its Sharpshooters headquarters in Harmar and kicked off with a Section business meeting conducted by Section Chair Dan Turk. The meeting then transitioned to the IP/PTP tutorial session, "IP Media Streams—SMPTE ST 2110 and ST 2059 Implementation Best Practices and Lessons Learned," provided by Karl Kuhn, senior video applications engineer at Telestream's Tektronix Video division.

Kuhn discussed the importance of and challenges associated with designing the facility for smooth bidirectional delivery of packets for both SMPTE ST 2110 and ST 2059, noting that network latency can produce out-of-order packets or data corruption, causing packets to be dropped. He also provided detailed information about the IEEE 1588 PTP standard and the need for SMPTE ST 2059-aware switches and ports to make it suitable for television plant synchronization purposes.

Kuhn also explained the importance of being able to visualize packet errors and network smoothness as they affect various aspects



Karl Kuhn provides tutorial on PTP at the Pittsburgh Section meeting in October.



Attendees at the Pittsburgh meeting tour the NEP facility. (L–R) Dan Turk, NEP group chief engineer; Gil Hanna, The Switch, vice president of sales engineering; George Hoover, NEP Group, chief technology officer (Retired); and John Humphries, Hitachi, vice president of business development.



Ryerson student Brynn Anderson talks about SMPTE to a show attendee.

of ST 2110, including packet arrival time, Real-Time Transfer Protocol (RTP) sequence errors, and buffer modeling. He observed that as the industry will be working with hybrid SDI and IP facilities for the foreseeable future, it is important to be able to compare conventional genlock to PTP stability.

Kuhn’s presentation was followed by a Q&A session. Turk and Joe Signorino, vice president of design and systems integration for NEP U.S. Broadcast Services then provided a tour of the latest NEP SS-8 outside broadcasting (OB) truck, which incorporates ST 2110 and ST 2059 IP and PTP technology into the standard workflow.

—Dan Turk  
Section Chair

### Toronto November 2019

The SMPTE Toronto Section returned once again to the 2019 ProFusion Exposition held in Toronto, 13–14 November. This exhibition draws professional broadcasters and photographers, directors of photography, and hobbyists. Many attendees visited the SMPTE booth to learn more about SMPTE. Thank you to

board members Richard Grunberg, Kevin Lyver, and Mansour Mahdavi, who helped with booth duties. Thanks also to Ryerson students Brynn Anderson, Angus Lam, Nina

Jeffery, and Sari Hicks, who also shared booth duties.

—Tony Meerakker  
Section Chair

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