

dents were able to learn about the AV industry and the profitable benefits of AV applications while watching the videoconferencing system in action. The students were responsive to the topic, asking questions about the path to success within the AV industry and connecting the topic to their studies of entrepreneurship.

DSE Registration Now Open

Registration is open for Digital Signage Expo (DSE), Interactive Technology Expo (ITE) and Out-of-Home Network Show (OOHNS), to be co-located at the Las Vegas Convention Center. This year, DSE's Sixth International Conference will run three days (February 24 to 26). On February 24, a full pre-conference program will feature content-related seminars, seminars dedicated to mobile and gestural signage, as well as the full-day Digital Signage Certified Expert (DSCE) Program for digital signage executives, presented by the Digital Signage Experts Group.

Attendees can sign up for a pre-show Live Installation Tour, as well as choose from 30 seminars over six tracks. Alice Gold, senior VP, Marketing Insights, OTX Research, will be the 2009 conference's first keynote presenter.

To exhibit at the show or attend, contact Chris Gibbs at (770) 649-0300, ext. 17. For additional information, visit www.digitalsignageexpo.net. A complete show preview and in-depth "New Product Spotlight" will appear in our February 2009 issue.

In related news, Digital Signage Expo East and Interactive Technology Expo East, the regional versions of DSE and ITE, announced that qualified attendees to that show surpassed expectations, exceeding 900. The inaugural event attracted a more regional audience, encompassing end users, and brand and advertising executives. Next year, both events move to the Washington (DC) Convention Center, September 23 to 24.

Shure Helps Wharton Face Spectrum Changes

Residing at the University of Pennsylvania, Wharton School was established in 1881 as the world's first collegiate business school. Considered one of the most esteemed institutions of its kind, the school has increasingly relied on technology in recent years, with sound reinforcement in the classroom coming to be the norm, along with distance learning capabilities and high levels of networked connectivity.

Facing spectrum changes associated with the FCC's auction earlier this year of the 700MHz band, Wharton—with a sizable amount of wireless systems operating in that spectrum—determined the time was right for a comprehensive upgrade. Malvern PA-based Genero, LLC, led the revitalization with a new wireless blueprint based around Shure UHF-R systems. Spanning buildings, including Huntsman Hall, Steinberg Hall, Dietrich Hall, Lauder-Fischer Hall and the Colonial Penn Center, the plan also included provisions for building a portable system designed for use virtually anywhere someone was willing to move it.

Counting only 14 spare channels, a total of 127 UHF-R channels were deployed on campus, 75 of which were in Huntsman Hall. UHF-R bodypack receivers were used within this count with Shure cardioid WL185 lavalier mics, while 40 SM58-equipped handheld transmitters were picked to fill out the rest of the input list.



Volunteering for the job of frequency coordinator, Shure senior applications engineer Tim Vear arrived on-site in September to guide the project proceedings. Armed with Wireless Workbench System Control Software, Vear divided his usable spectrum into 107 compatible master channels within the H4, J5 and L3 bands. Then, he calculated further subsets slated for use in rooms with multiple systems. When he was done, he had used 180MHz of total bandwidth, with a minimum of 350-400kHz between channels.



HM Electronics: Tracing The History

In 1971, Harry Miyahira founded Poway CA-based HM Electronics and, over the next three decades, launched products that have affected various industries and people. The first was the wireless microphone system, launched by Miyahira and his San Diego-area company in 1971. The wireless microphone gave its users new options, broadly impacting sound needs. Prior to the lapel-size piece, referees and coaches fought with wires and limited mobility, while a specially selected and trained bishop had to outfit the pope with a traditional wired system before speaking engagements. Comparative hassles might still exist, but the sound world without wireless capabilities today would be unimaginable.

Following the success of the wireless microphone, HME introduced the first wireless full-duplex audio intercom system. In 1979, this allowed broadcast and theater crews to break away from stationary posts, channeling the freedom into creative and improved broadcasts. In 1992, the second-generation system, SYS800, one of the first products with a



rechargeable battery and rackmountable design, was unveiled. As time passed, HME continued to improve upon and tailor the intercom system for specific applications, including uses in the quick-service restaurant and sports communication industries. The former was redefined by the technology, which enabled management to change the way restaurant crews worked, boosting the industry's profitability, efficiency and customer friendliness.

In 2003, HME split into three divisions: Pro Audio and Sports Communications, Drive-Thru Operations and a third department devoted to customer satisfaction. Also in 2003, HME began marketing the PRO850 Wireless Intercom System. "[The PRO850] gave users the ability to customize their systems. Before, technicians were bound by their equipment and had to buy individual products created for their specific facility and use," remarked Rick Molina, product manager for the Pro Audio Division.

From there, things went digital. The DX200, a 2.4GHz wireless intercom, was introduced in 2004, followed by the DX100, a portable intercom system with the ComLink all-in-one headset. Then, in 2007, the DX300, a system designed specifically for sports events, broadcasting and live venues, was unveiled.

Today, in addition to research efforts, as well as domestic and environmental responsibility, HME serves a diverse range of markets and has been named "Best Place to Work" by the *San Diego Business Journal*. The products are produced out of a 71,000-square-foot facility. In the beginning, though, Miyahira and a handful of others worked from rented office space, juggling everything. "We all had to wear many hats. Harry would engineer the products, oversee the manufacturing, and do the sales and marketing. Harry's wife would keep the books and do secretarial work. I would do the testing, shipping, receiving and servicing of the product and take all the phone calls. Many times, we stayed until well after dark. We didn't go home until the job was done," recalls Mike Hughes, VP and general manager of HME's Pro Audio division.

Besides the large plant in Poway, HME has two wholly owned subsidiary offices in Atlanta and St. Louis, as well as distributors worldwide. "Harry retired from active involvement in the company, turning over the reins to...his son, Chuck Miyahira, the CEO," added Hughes. "Many times, we stay until well after dark. We don't go home until the job is done." Perhaps some things never change.

NSCA Schedules Business Conference

NSCA's 2009 Business & Leadership Conference, formerly the Fall Business Conference, will be held February 26 to 28 at the Pointe Hilton Tapatio Cliffs Resort in Phoenix AZ. A forum for executives and managers in the commercial electronic systems industry, conference attendees will hear from presenters and industry experts, as well as experience networking events and interactive sessions.

According to NSCA executive director Chuck Wilson, "Especially now, when business owners are facing new economic challenges, incorporating new costs or trying to generate new business, this event provides a place where knowledge is freely exchanged and fresh perspectives are gained to deal with the current generation of problems we all face."

Attendees can customize their learning experience to focus on their specific needs. For more information, go to www.nasca.org.

Neutrik's James Cowan Dies

James Cowan, president of Neutrik USA, died of cancer November 5 at the age of 52. Cowan worked for Neutrik for 20 years, starting out as general manager, advancing to vice president and, finally, being named president in March 2000. Werner Bachman, CEO of Neutrik AG and a 20-year friend, said, "Jim was a wonderful leader with just the right combination of business skills and personal qualities. But, more than that, he was an industry icon and a genuinely caring person who touched everyone with his kindness....I know he will be sorely missed by an industry he so significantly impacted."

In addition to running the company, Cowan was instrumental in Neutrik's donation efforts, offering the company's equipment to organizations and schools such as Brookfield Academy, La Sierra University and Michigan State University. He was a member of the Professional Audio Manufacturers Alliance (PAMA), an organization for senior executives leading the companies that manufacture professional audio products.

He is survived by his sons, Gregory and Dan, and his wife, Kate.



Sennheiser Addresses White Space Ruling

Following the recent ruling by the Federal Communications Commission (FCC) regarding proposed white space consumer devices, Sennheiser is taking steps to assure users of wireless audio products that problems will not reign after the February 17, 2009, deadline for the digital TV conversion. According to the company, not only has the FCC ruling put a variety of safeguards in place to help prevent interference between the unlicensed consumer devices and RF wireless microphones, but the company itself is also launching enhanced customer service and support programs.

Sennheiser is offering a free initial consultation service with an RF specialist regarding the operation of any wireless mic or monitoring equipment after February 17 via phone. To receive a call, sign up at www.sennheiserusa.com/spectrumreallocation. Higher-level services will include on-site spectrum analysis, frequency coordination and service contracts.

The FCC rules do include several safeguards to avoid wireless microphone interference. Principally, licensed operation of wireless mics takes precedence over TV Band Devices (TVBDs, previously referred to as white space devices), which must coordinate around active licensed wireless mic systems.

TVBDs must include the spectrum-sensing capability to listen to the airwaves and detect wireless microphones (in addition to TV stations). Until they can demonstrate through "proof of performance" that they can sense wireless mics reliably and avoid causing interference through this method alone, they also must use a geolocation database system. The database will include a table of registered broadcast license assignments. It also will include a list of protected areas that use wireless microphones, such as entertainment venues and sporting events. TVBDs must first access the database to