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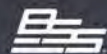


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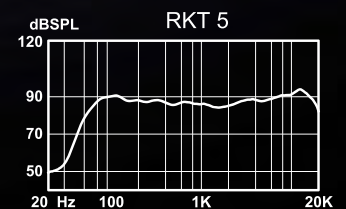
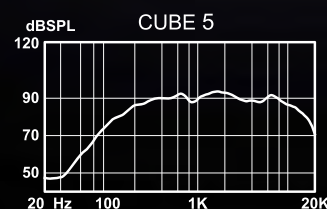
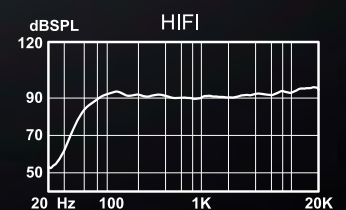
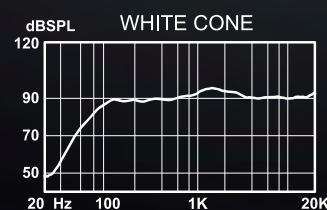
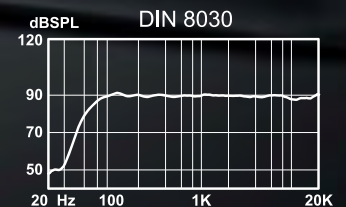
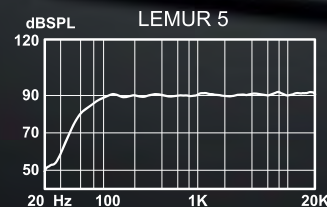
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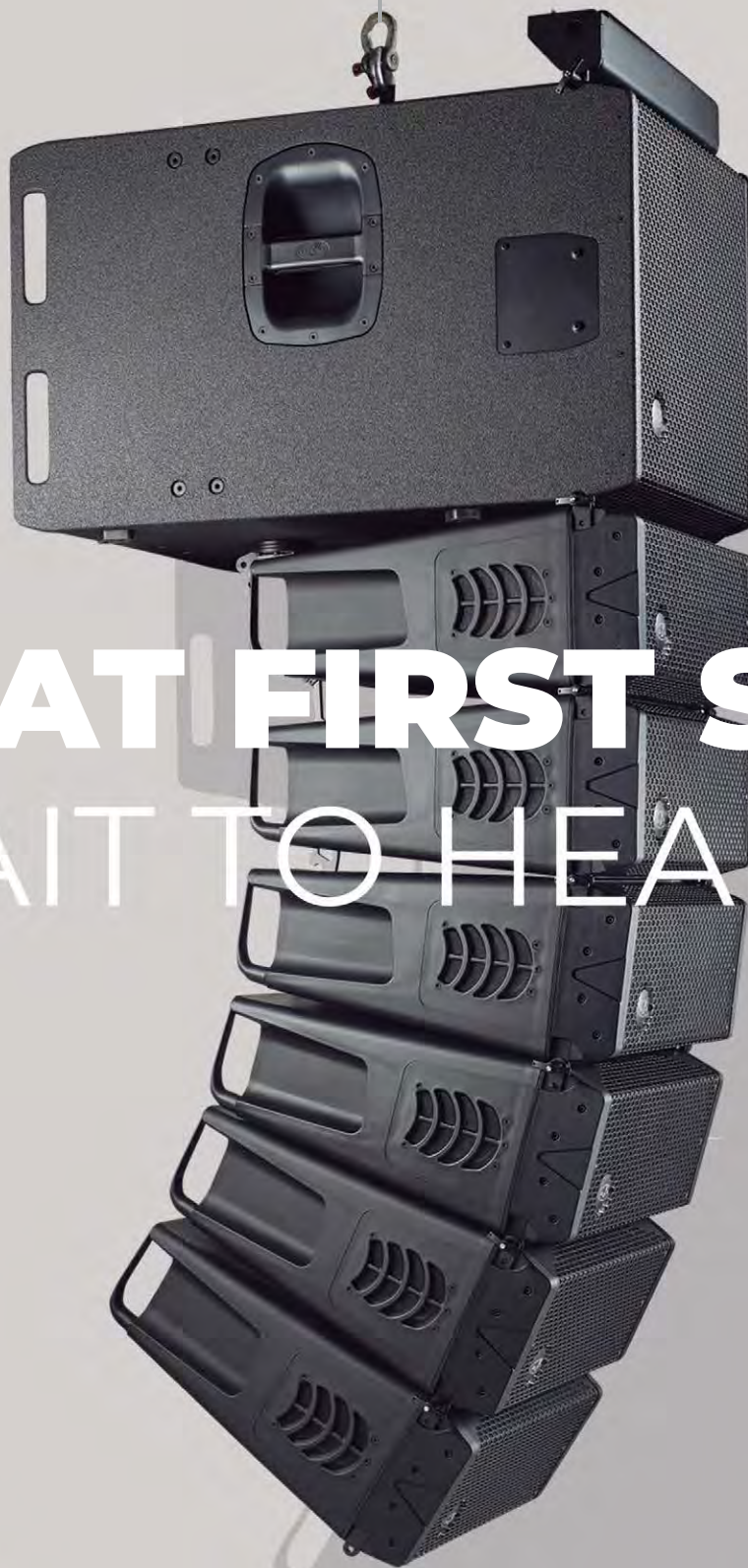
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AUDIOFOCUS DELIVERS EXCEPTIONAL SONIC EXPERIENCE AT AN OUTDOOR SHOW IN PUNJAB

Recently, **SoundXperts**, a Punjab-based end-to-end audio, video, and lighting solutions provider and a renowned channel partner of **Sun Infonet Private Limited**, hosted an outdoor show in Mohali, India, to help the industry players/sound engineers / technicians from and around Punjab experience the power of **Ares 8A Series Loudspeaker** from **AUDIOFOCUS**.

For the listening experience, two line array clusters were formed, which consisted of 8 speakers for left and right and 4 speakers as centre fills. Two **MT218MKII** and four **B18A** subwoofers from **AUDIOFOCUS** were deployed on ground on each side of line array.

Apart from the **AUDIOFOCUS** speakers and subwoofers, for the live experience/ learning from industry experts, series microphones from **Axient Digital** were also deployed. A console/mixer always plays important role in any show, so **Avantis**, from **Allen & Heath** was also deployed by SoundXperts, which was noticed and appreciated by the visitors.

SoundXperts, along with Sun Infonet, has been doing these kinds



In the spotlight: AUDIOFOCUS' pro audio equipment stole the show with its brilliant sonic profile

of shows since a long time to educate industry professionals on the gear that rental partners invest in. With the aim to always enhance the current audio experience, Sun Infonet constantly supports its partners to conduct such similar roadshows/indoor and outdoor training programmes.

As per **Amninder Warraich**, Owner, **SoundXperts**, "These kinds of shows provide an opportunity to the end-users to enhance their acoustic experience or learn something new which they could not discover before or after purchase."

He further adds, "The system deployed by us perfectly fit into the current scenario and demand of the market. The tonal quality that the vendor always searches for; they get in the 8-inch enclosure which delivers a



As part of the setup, two MT218MKII and four B18A subwoofers from AUDIOFOCUS were deployed on ground on each side of line array

pristine audio experience. The main requirement of the Punjab audio industry is loudness, which can be perfectly delivered by the **AUDIOFOCUS** System."

"Interaction with end-user or sound engineers during such shows also provide us with an opportunity to understand their feedback, service-related issues, and more in order to communicate with OEMs for further R&D to continually improve the product(s)", **K. C. Pant**, General Manager, **Sun Infonet**, commented.

Kallol Nath, Sr. Application Engineer, Sun Infonet added, "Being a sound engineer, these kind of outdoor listening experiences provide the best platform for the sound engineers/rental companies to experience the audio quality

that they always want to discover and deliver in their shows."

He also added, "Today's live sound industry demands high audio quality along with a sound system that can be rapidly deployed in any given situation. This listening experience provides end-users with a better perspective to make a wise decision regarding what should be added to their inventory."

Sun Infonet's main objective of supporting their channel partner SoundExperts is to educate the customers before purchase so that they are well-informed about the features and versatility of the product at hand.

PP SOUND LIGHTS PRODUCTIONS PROVIDES SUPERLATIVE SOUND REINFORCEMENT FOR THE FIRST EDITION OF KULA FEST

PP Sound Lights Productions, one of the ace rental services company, was chosen to provide a comprehensive technical reinforcement solution for the **KULA Fest**, which took place from January 13 through January 15 at Mumbai's iconic **NESCO Exhibition Centre**.

The one-of-a-kind, three-day event witnessed indigenous artists sharing the stage with leading contemporary and modern artists from countries like Australia, Germany, Indonesia, Japan, Malaysia, Nepal, New Zealand, UK, US and Vietnam; showcasing art practices which challenge boundaries and dare to experiment with the unfamiliar and unlikely. Gracing the performance stage were top names from the world of music like Kiss Nuka, Jatayu, BottleSmoker, Wild Wild Women, Prem Joshua & Band, Ezra Tekola Samuel, David Angu and The Tribe, Mo Styles, Divij and more.

Considering the unique value proposition of the festival's music experience slated to be delivered through an extraordinary line up of world-class musicians – it became clear that the audio reinforcement would play an extremely crucial role in ensuring an optimum audience experience that would befit the theme of the festival and the objective that it looked to achieve. As a member of **KULA Fest**'s managing committee elaborates, "There are certain understated aspects that play a key role in bringing any type of live performance to life - stage, lights and perhaps the most important – sound. We chose to partner with **PP Sound Lights Production** purely because Prasad and his team have an innate understanding of the various nuances of all the important technical aspects that goes into pulling off a flawless event."

The member further adds, "Partner-



PP Sound Lights Production delivers an unforgettable sound reinforcement at KULA Fest

ing with **PP Sound Lights Productions** made our work easier in terms of the kind of approach we needed to take with the sound reinforcement; and thanks to their unmatched level of commitment towards excellence, we were able to ensure a superlative sound experience for the audience. Their inventory is up to date with all the latest equipment; and so, as organizers,

we knew that the technical requirements in terms of sound would be well taken care. They did do a fabulous job indeed. The event was flawless – the music experience was impeccable, and everyone was really pleased!"

Prasad Parkar, director of **PP Sound Lights Productions** reveals that his

(Continued on page 07)

PIONEER DJ ANNOUNCES XPRS2 SPEAKER SERIES

The series introduces two new active loudspeakers and subwoofers, complete with high-performance components and specialized DSP settings for an immersive listening experience

Demonstrating its commitment to artists, engineers and integrators worldwide, **AlphaTheta Corporation** announced the release of the new **XPRS2 Speaker Series** from its **Pioneer DJ** brand. The XPRS2 Series couples the versatility and mobility of the original XPRS Series with elevated sound-performance and audio intelligibility to deliver a high-calibre speaker system for mobile DJs, live sound, houses of worship, rental, and fixed installations.

"The XPRS2 inherits the rich heritage and pedigree of Pioneer DJ technology that artists and venues trust, while integrating new innovative audio technologies to support the evolving needs of the industry," said **John Powell**, President, AlphaTheta Music Americas. "The XPRS2 prioritizes full dynamic range and sonic clarity to deliver listeners a full, rich sound that stands up to anything a DJ might throw at the system, and we cannot wait to get the speakers in the hands of our dedicated community of artists and venues."

XPRS2 Series: Core Features

Powerful Class D Amplification

The XPRS2 Series employs Class D Amplification with high output wattage for a powerful and premiere audio experience for performers and listeners alike. The XPRS102 and XPRS122 full-range speakers feature Class D 2000 W

amplification, while the XPRS1152S and XPRS1182S subwoofers offer Class D 4000 W amplification.

High Quality, Robust Build

Pioneer DJ's all-new XPRS2 Series features a sleek all-black, protective plywood cabinet for performance in harsh indoor and outdoor environments. The series models all come with a durable handle to support system portability and handling during setup and take down. The XPRS2 Series also features rubber feet to create separation and shock absorption between surfaces.

XPRS2 Full Range Speakers: XPRS102 and XPRS122

Four DSP Modes

Both of the XPRS2 full-range speakers contain four different DSP preset modes—Live, Music, Speech and Floor Monitor—to address the needs of different listening environments.

16 Customizable User DSP Modes

In addition to the

four presets, each XPRS2 full-range speaker includes 16 custom user DSP modes - which can be saved with different names - to ensure the EQ settings are maximized for every scenario.

XPRS102 Full-Range Speaker Design

The XPRS102 pairs a 10" woofer and 2.5" voice coil with a 1" exit compression driver and 1.75" voice coil to deliver pristine audio performance. Complete with a maximum sound pressure level (SPL) of 129 dB and frequency response of 50 Hz - 20 kHz, the XPRS102 full range speakers help ensure music and spoken word reproduction is accurate and performs as intended.

XPRS122 Full-Range Speaker Design

The XPRS122 is the larger full range speaker counterpart in Pioneer DJ's XPRS2 Series. Featuring a 12" woofer and 3" voice coil with a 1" exit compression driver and 1.75" voice coil, the speakers deliver comprehensive sound coverage across mid to large audiences and venues. Boasting a frequency response of 48 Hz - 20 kHz and a maximum SPL of

131 dB, the versatile full range speaker delivers powerful sound built to thrive in even the harshest of sound environments such as a live DJ set.

XPRS2 Active Subwoofers: XPRS1152S and XPRS1182S

Three DSP Modes

Both of the XPRS2 subwoofers contain three different DSP preset modes—Boost, Extended LF, and Normal—to suit different listening environments.

Accurate Audio Performance

The XPRS1152S employs a 15" ferrite woofer with a 3" voice coil with long excursion while the larger XPRS1182S relies on an 18" ferrite woofer with a 3" voice coil with long excursion to produce low frequencies with paramount accuracy.

Frequency Response

As with the XPRS2 full range speakers, the new XPRS2 subwoofers' performance is apparent through both the frequency response and maximum SPL. With the XPRS1152S providing a frequency response of 45 Hz - 120 Hz and a maximum SPL of 129 dB, while the XPRS1182S offers a 40 Hz - 120 Hz frequency response and 130 dB maximum SPL; the subwoofers pack in the performance of a permanent install subwoofer with the compact mobility required by today's mobile artists, performers and venues.



PP SOUND LIGHTS PRODUCTIONS PROVIDES SUPERLATIVE SOUND... (Continued from page 06)

team designed and commissioned the entire technical setup with the utmost amount of care and caution, keeping in mind the diverse range artists lined up for the event, while also taking stock of various venue-based dynamics such as the stage metrics, and crowd capacity.

An Intensive Equipment Inventory For KULA Fest

For the mainstage, PP Sound Lights' team deployed a comprehensive loudspeaker system from **d&b Audiotechnik**, with the FOH comprising multiple units of the versatile **V-series line array** modules paired with the powerful **B22 subwoofers** on either side of the stage; and several units of the **Max2 monitor wedges** that were placed strategically on stage to act as the floor-monitoring solution for the performing artists. The entire loudspeaker system was

powered through multiple units of the ultra-efficient and dependable **D80 power amplifiers**.

To assist artists with their respective music playback requirements; PP Sound Lights' team also provided a complete set of the industry standard **Nexus 2 DJ'ing system (CDJ2000 players + DJM900 mixers)** from **Pioneer DJ**, which of course was in addition to the expansive microphone inventory that comprised multiple sets of wireless systems which included the acclaimed **6000 series wireless microphone system** from **Sennheiser** as well as the industry-proven **Axient Digital wireless system** from **Shure**. To enable control over the overall quality of the sound experience for the audience at the mainstage, the team offered the leading-edge **S6L full-format mixing console** from **AVID** which was used to

fulfil FOH mix as well as artist monitor mix exigencies.

The venue also hosted a secondary stage dedicated to hip-hop performances, which the PP Sound Lights' team outfitted with a compact yet powerful loudspeaker setup from **JBL by Harman** that comprised the **VRX-932LA line array system** paired with matching pair subwoofers as the FOH system, along with **VRX915 wedges** deployed as the on-stage monitoring solution. This stage was once again equipped with a select range of corded and cordless microphones from leading brands like **SHURE** and **Sennheiser**; with the PP Sound Lights' team also providing the versatile **XONE:92 six-channel mixers** from **Allen & Heath** for battle-mix programmes. A single unit of the compact yet versatile **AVANTIS 64 channel 42 bus digital mixing**

console from **Allen & Heath** allowed the mix engineers complete control over the quality of sound playback at the stage.

Prasad sums up his experience of being associated with the first edition of the KULA Fest as he comments, "At the end of it all, it is so heartening to receive a flurry of compliments from the artists, organizers, and audience members for a job well-done. I'm extremely proud of the efforts that every single member of PP Sound Lights Productions has put into bringing this magnificent event together, and I would like to express my sincerest gratitude to the immensely talented managing team at KULA worldwide for their unwavering support throughout the entire project. This is an event that will hold a special place in our memories for years to come!"

MEYER SOUND INTRODUCES 2100-LFC LOW-FREQUENCY CONTROL ELEMENT

Meyer Sound announced the **2100-LFC low-frequency control element**, a powerful new loud-speaker that extends the advanced technology of the PANTHER large-format linear line array loud-speaker down to the lowest limits of audibility.

By pairing a potent Class D amplifier with a single, all-new 21-inch driver with four voice coils, the 2100-LFC produces a linear acoustic output suitable for the most demanding applications. With an extended frequency response from 30 – 125 Hz, this class-leading performance is achieved in a loudspeaker that is more than one foot (30 cm) narrower and about 20 percent lighter than the 1100-LFC product.

"The 2100-LFC shares the core design philosophy behind our breakthrough PANTHER line array," says Meyer Sound Senior Product Manager **Andy Davies**. "With the 2100-LFC we've had the same goal of making a lighter and slimmer self-powered cabinet with all the performance the industry has asked us for while bringing it to the market at a lower initial cost than the previous generation. With PANTHER and the 2100-LFC we now have a complete, full-bandwidth solution for high-impact sound reinforcement in large-scale portable and installed applications that meets the practical and budgetary demands of the modern industry."

New Driver, Class D Amplifier, And Four Voice Coils

Achieving the ambitious performance goals of the 2100-LFC required the development of a new 21-inch cone driver and a new

high-power Class D amplifier. For the driver, the Meyer Sound engineering team built on the experience gained from the dual voice coil 18-inch driver in the 900-LFC, but here stepping up to four voice coils. The new driver benefits from an all-new Class D amplifier rated at 1200 watts maximum continuous



power, with peak power of 8000 watts.

"Like all sub-bass loudspeakers producing very high levels over hours of use, the magnets and voice coils can get very warm and that affects the linearity of the output," notes Davies. "But since we have AC power on board, we are able to engineer cooling systems not just for the amplifier but also for the magnet and voice coil assembly. So, the output of the 2100-LFC maintains a linear response no matter how hard you drive it."

The frequency and phase response of the 2100-LFC is tailored to complement not only PANTHER but the entirety of Meyer Sound's linear line array products. This makes the 2100-LFC a great fit for customers who already own 900-LFC or 750-LFC products and want to expand their inventory.

Reduced Weight And Size

Reducing the weight and size of the cabinet ensures flexibility, giving greater freedom to fly arrays using fewer or

smaller motors. When coupled with the weight savings already achieved by PANTHER, this means productions are faster to rig and easier to fly in a wider range of venues. This flexibility also allows users to bring the highest levels of low-end performance to even the smallest venues, and do so with a product that could be touring into stadiums the next day.

Like the 1100-LFC, the 2100-LFC has symmetrical rigging hardware, allowing easy mixing of front and rear orientation in cardioid arrays. However, the narrower cabinet profile of the 2100-LFC allows for a much more efficient

truck pack, with three-high stacks fitting three across in USA or European semi-trailers. "The stacks are a bit higher than other models in the LFC family, but that's usually wasted space up at the top," observes Davies. "Overall, it's a far more efficient use of truck space, and when you add the savings in space PANTHER has already contributed, we are dramatically reducing the cost of touring logistics."

Preliminary specifications for the 2100-LFC low-frequency control element give measurements of 42 inches (107 cm) wide, 24 inches (61 cm) high and 26.5 inches (67 cm) deep. The enclosure is premium multi-ply birch with a textured finish. The grill is powder-coated stamped steel.

Seamless System Monitoring And Connectivity

The 2100-LFC also incorporates the same standard dual input module as PANTHER, offering both a Milan AVB endpoint for digital audio and monitoring telemetry, plus an analog input

for backward compatibility with existing systems. System monitoring and connectivity is handled by Meyer Sound's acclaimed Nebra software package. The 2100-LFC will also benefit from the product integration functionality in the Galileo GALAXY series of processors, ensuring seamless audio integration with all generations of Meyer Sound self-powered systems. All connections on the module — network, AC power, and analog XLR input — are via Neutrik TOP (True Outdoor Protection) connectors with an IP55 rating, making weather protection a standard feature.

"A sub-bass unit with a single 21-inch driver is something we've wanted to offer for a number of years because of the size and weight advantages as well as the sonic benefits," says Davies. "Finally, technology and engineering have caught up with our ambitions. We set a high bar with the 1100-LFC, which set a new standard for power paired with accuracy and musicality. We expect the 2100-LFC will deliver a level of open, transparent, and linear low-frequency power that will again raise the bar for the industry and redefine what is possible."

The Meyer Sound team responsible for the design, specification, and testing of the 2100-LFC was led by Engineering Director, Acoustical & Mechanical, Katharine Murphy Khulusi. "We are excited to continue to push the boundaries of performance. The 2100-LFC will be in the same performance class as the 1100-LFC in a lighter, more compact package. The extended frequency response gives 35 percent extra usable range. This launch continues to take our new products into the future."

EAW UNVEILS KF210 PASSIVE LINE ARRAY

Eastern Acoustics Works (EAW) recently unveiled the **KF210 2-Way 2 x 10" Passive Line Array** to continue its legacy of esteemed EAW sound quality and durability.

Offering a max SPL of 141dB, three-point rigging and built-in weather protection, the KF210 is a powerhouse in a small, durable package, designed to support a wide range of applications for the long-haul. Despite its small

form, there is no sacrificing output for size with the KF210. This newest solution is physically and acoustically sized to support the most events while requiring the fewest resources to deploy. Weighing in at only 60lbs, this line array solution is an ideal option for small crews operating out of medium to large outdoor festivals, corporate events, houses of worship, performing arts centers or theaters. Featuring dual,



symmetrically placed 10-inch woofers, 90 degrees of horizontal bandwidth and a 3in voice coil compression driver mounted to EAW's patented Isophasic Waveguide, the KF210 can master chal-

lenging acoustic spaces with accurate pattern control.

KF210 is equipped with EAW's Focusing

and DynO digital signal processing, allowing for clear and dynamic sound with a pristine impulse response from 18kHz down to 55Hz.

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BRINGING SOUND TO LIFE:

Ashish Saksena on his Love & Passion for Live Sound Mixing

In Conversation with Ashish Saksena, Live Sound Engineer for Shankar Ehsaan Loy & KK

*With more than 25 years of experience as a live sound engineer for musical stalwarts such as Shankar Ehsaan Loy and KK, **Ashish Saksena** has forged his craftsmanship with technical acumen in monitor mixing and Front of House mixing. But his expertise in sound engineering isn't restricted to the live stage. Even in the studio, Ashish knows how to make the mix dance to his own tunes. PALM + AV-ICN spoke to Ashish Saksena, who takes us down the memory lane at the beginning of his career in live sound engineering, why he didn't want to go back to live shows after trying his hand at a virtual sound mix, what the future holds for the art of monitor mixing, and why he prefers FOH mixing over monitor mixing.*



An Unexpected Kickstart to a Lifelong Career:

Diving into the finer details about when and how he took his first steps in the world of live sound engineering, **Ashish Saksena** recalls that it wasn't the live stage that he first put foot onto; rather, it was within the four walls of the studio where he first found his calling. He shares, "My mom, Pushpa Saksena, is a Hindi voiceover artist. I used to accompany her to her recordings. The studio environment fascinated me – the speakers, the big tapes, and all of that. My father knew Louis Banks quite well from his IIM Calcutta days. One day, my father and I went to Louis uncle's

recording studio, and he asked my father, "Who's this?" My father replied, "He's my son." Louis uncle replied, "Send him to my studio (4-D) from tomorrow. I will put him to work." That's how I started off in the studio - by fluke.

He adds, "Then I graduated to doing live sound for Colonial Cousins – Leslie Lewis and Hariharan. So, I did a few years of that, and I came back to the studio. Then, Shankar Ehsaan Loy approached me, and I stepped out of the studio and started doing live sound for them. I did Front of House and monitor mixing for this band for quite some time, until we got a dedicated monitoring engineer. After a few years, when this dedicated monitoring engineer decided to join another band,

I shifted to doing monitors, and we got someone else to do Front of House. I was involved in monitor mixing for at least four to five years. Now, I am back to Front of House, since we have someone else for monitor mixing now.”

But, Ashish Saxena was still not contemplating monitor mixing as a serious career pathway. He reminisces: “Initially, I took all of this very lightly, because I was focused on the studio side of the industry. But when I saw how vast and complex the live sound industry is, I turned more serious about it. Basically, it’s engineering that drew me towards the live sound field – and it’s a very different kind of engineering, different kind of equipment, and different kind of electronic applications being used in this industry.”

The Start of a Musical Journey with Shankar Ehsaan Loy:

Talking about how he began touring with the trio of musical maestros, Shankar Ehsaan Loy, Ashish Saxena shares that it’s his familiarity with the kind of sounds that Shankar Ehsaan Loy preferred that got him into the live sound industry in a full-fledged manner, “Basically, Shankar Ehsaan Loy worked in the same studio as me, so we met each other almost every day. That’s how it all started. I also worked with them on a few films where they composed music. So, there was a sort of a familiarity between us. So, when they decided about venturing into the live music event in a full-fledged manner, they started looking for a dedicated live sound engineer. I was right there, so they approached me. Because they wanted a familiar face, a medium to convey their instructions across the touring team, and a single point of contact, I started touring with the band as their live mix engineer.”

Sharing more about how the overall journey has been like as Shankar Ehsaan Loy’s live sound engineer, Saxena shares that technological advancements pro-



”

I use a lot of Sennheiser equipment. I rely on it quite a lot since it has a good sound and it is simpler to use. Right now, we only have two prominent brands in India for the live sound industry – Shure and Sennheiser...For the console, I use AVID. Not that I mind using DiGiCo or any other reputed brand, but my personal preference is to use an AVID console.

pelled them to deliver more and more outstanding live sound experiences to the audiences. “As my journey with Shankar Ehsaan Loy progressed, all of us witnessed several changes in terms of the technology being used in the live sound industry. When I joined them, we used to have analog consoles and speaker boxes, and now, he have digital consoles and line arrays coupled with other technological advances which are available to us now. The journey has been more technical, so to say. The craftsmanship has always been out of the world from day one, so I didn’t really have to work too hard from a creative standpoint.”

He adds, “The growth I experienced while working with Shankar Ehsaan Loy has been amazing, because the trio are brilliant musicians. So I hit the ground running with them. I didn’t have to really ‘fix’ their sound or acoustics, they are all genuinely phenomenal as artists. It all fell into place immediately.”

Reliable Equipment for a Fail-Proof Monitor Mix:

As a monitor mix engineer whose primary role involves relying on quality equipment in order to create a good mix, Ashish Saxena is very particular about the equipment brands that he trusts on the live stage, “I use a lot of Sennheiser equipment. I rely on it quite a lot since it has a good sound and it is simpler to use. Right now, we only have two prominent brands in India for the live sound industry – Shure and Sennheiser. However, until a year before KK passed away, I used an Audio-Technica microphone on him, which sounded beautiful and made him sound absolutely amazing. But for microphones and in-ear systems, I rely on Sennheiser. For the console, I use AVID. Not that I mind using DiGiCo or any other reputed brand, but my personal preference is to use an AVID console.”

A Live Sound Engineer’s Communication Skills:

What has monitor mixing got to do with a live sound engineer’s communication skills? Ashish reveals, “It’s very important. You have to build trust between you and the touring crew, and also between you and the musicians. In the absence of that trust, there will be a lot of problems. There are certain things which you may not be able to explain to the musicians due to their technical nature, but if you have a good rapport with them, you can just ask them to trust you, and they will. The artists need to know that you are capable of doing your job, and one more thing, as a live sound engineer, keep a policy of open communication. If something is glitchy, not working, do let them know.”

What is Ashish’s process of establishing a clear communication with artists he’s meeting for the first time? He shares, “When I am touring with artists I have never toured with before, I make it a point to meet up with them during rehearsals, and start talking to them to make both of us comfortable with one another. For instance, I was doing this festival in Jodhpur, and at the last minute, I was asked to mix for another artist. So I went to his room, met him and his touring crew, and hear his music to familiarize myself with the kind of music they were planning to perform at the show.”

Virtual Mixing in the Lockdown:

Ashish Saxena has a newfound love for virtual live mixing. He concedes, “I love virtual monitor mixing. It is just like studio mixing with a live band. It’s like, you are mixing in a studio, but with a live band. This allows you to perform finer detailing and catch the nuances. You can do things that you can’t do or can’t even make out

on a big PA. In a live setting, you sometimes do not even bother to correct these nuanced details because you know that it is a room mode, it is going to boom. But when I was doing virtual live mixing, I didn't want to go back to doing physical live shows. I liked this space – it has professional studio speakers, and the sound engineers are in an isolated environment. Virtual live mixing is fun."

Switching to Front of House Mixing:

Despite an immensely successful career as a monitor mix engineer, why did Ashish Saksena decide to go back to Front of House mixing? He replies, "I think the switch has more to do with the creative aspect of FOH rather than the technical part. When you are performing a monitor mix, of course, to an extent, it is creative, like the part where you are processing the instruments that you are given and ensuring that the mix for the musicians sounds right. But, at the same time, it also demands a lot of technical acumen, because you are handling radio frequencies, several microphones, and numerous in-ear systems, musicians, monitor wedges, their placement – all of that, and more – which is also a collaborative effort with the FOH engineer. In the end, it is a synchronized role, the monitor mix engineer and the FOH engineer cannot function independent of one another. But, I started my career with FOH mixing, and that's what I love – mixing sounds on the big

”

I love virtual monitor mixing. It is just like studio mixing with a live band. It's like, you are mixing in a studio, but with a live band...I liked this space – it has professional studio speakers, and the sound engineers are in an isolated environment. Virtual live mixing is fun.

speakers. So, when I got the chance to return to FOH, I grabbed it with both hands. There were no two ways about it. I mix monitors even today, so it's not that monitor mixing has seeped out of my life. It's still very much a part of who I am and what I do."

Asked if he prefers FOH over monitor mixing, Ashish Saksena is very prompt to respond. He replies, "I prefer FOH now. When I started with Shankar Ehsaan Loy, we had five auxes. We had a singer, we had percs, gtrs, keys, and drums. So, we had six mono auxes for analog and wedges, and I had the seventh and eight auxes for reverb and delay. So we used to have these Soundcraft analog consoles and Allen & Heath consoles, and eight auxes – six for the stage and two for me. Now, we have thirty-six auxes, just for the stage. It's just the tediousness of it which makes me prefer FOH mixing over monitor mixing."

The Future of The Live Sound Industry:

Ashish Saksena is of the opinion that the live sound industry, especially the field of monitor mixing, is already on the precipice of a technological overhaul (KLANG Immersive is here already). He comments, "The technological advancement is already happening. We're already seeing a lot of iPad mixing, remote mixing, and more similar developments. As far as the actual concept of monitor mixing is concerned, I don't think that's going to change, because the basics have to be in place. The equipment and the technology will just become better and better. For instance, we are already using digital microphones, and I think digital in-ear sys-

tems are also arriving soon. But even then, the basic way of creating good sound isn't going to change anytime soon."

But, is remote mixing the next big thing in monitor mixing? Ashish Saksena shares that overseas, it's already a commonplace occurrence, "What happens overseas is that a lot of bands move from one place to the other with their equipment, their gear, the stage sound is consistent. So, they set up a mixing console. When they rehearse in their space, they set up a proper monitor mix for the musicians and lock it. So, they travel with two mixing consoles, but one engineer. So, the pre-mixed console is switched on and loaded up with the show file on the stage. The musicians have these little remote pads, which helps them to create any minor changes on the spot."

Saksena divulges the technology that is set to be a game-changer for the monitor mixing field in this country, "In India, we rely more on iPads now, because be it an AVID console, a Yamaha console, or a Soundcraft console, you can connect it to the iPads nowadays. You can give each an iPad to each musician and they can control their own mix. So, this is a more hybrid approach than remote mixing – there is a person who attends to the monitor console, but at the same time, the musician, via the WiFi, is able to control his/her own mix."

The Most Unforgettable Live Concert:

Every live sound engineer has a live concert he'll never forget. Ashish Saksena is no exception. When asked about a live concert that left a mark on his memory, he proudly states, "I mixed The Wailers. The band was performing at a festival in the Kamala Mills Compound, and they needed a mix engineer at the last minute. So I got a call from their sound company and he said, "Listen, there's a small show that they need a mix engineer for. Are you up for it?" I said, "Yes, of course." I reached the venue and I saw The Wailers. I was balled over. They sounded fantastic. I will never ever forget that show."

Key Qualities of a Successful Live Sound Engineer:

No one better than Ashish Saksena can speak about the key qualities required to be successful in the ever-expanding live sound industry. To aspiring monitor mix engineers and FOH mix engineers, he advises, "It is vital to have basic musical knowledge. You are dealing with musicians, artists, and singers. I regret not learning any musical instrument. However, it wasn't a key requirement at the time when I entered the live sound industry. If I had learnt even a single musical instrument, it would help me speak the language of the musicians. For example, what happens often is that, in the studio, when you are recording something, and the musician says, "Can you go to that G-Major part?" I just look at him blankly, and then he clarifies, "Go to bar 140." I understand bar 140, so I scroll to bar 140, which is the G-Major part. So, be a little musically inclined. It will make the path much easier for you."

He further shares, "The other key quality required to succeed as a live sound engineer is patience. Effective communication and a pleasant demeanour is also very important to maintain. You can't be frowning and snarling all the time. Have a little aptitude towards sound and basic technical prowess, it is an advantage."

Ashish Saksena also shares that there is a huge dissimilarity in the way Indian rental companies work with a technical rider as opposed to say, a western country, so to succeed in your efforts as a live sound engineer, particularly in the field of monitor mixing, it is a prerequisite to get your technical rider right. He adds, "The major difference between shows in India and overseas is that overseas, you have to flesh out your equipment requirements in detail in your technical rider. For example, we got stuck in Washington DC once, because in my technical rider, I wrote microphone stands, and I specified whether I needed small microphone stands or big microphone stands. But there was one word I missed to add in between, which was called 'boom'. I forgot to specify that I needed a boom stand. The event company took it very literally, and gave me one big rod and one small rod with a clip on top and a base with no way to angle it. In India, there is more spontaneity and flexibility. The rental companies providing the equipment is poised to accommodate a lot of last-minute changes. It has never been an issue."



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SHARP/NEC TO LAUNCH LED FE SERIES 104" 21:9 PANORAMIC VIEW BUNDLE

In order to promote hybrid working scenarios, **Sharp/NEC** is launching the **NEC LED-FE009i2-104 Panoramic View Bundle** for corporate meeting rooms. The Indoor LED ultra-wide Full HD bundled solution holds a large scale for perfectly detailed imagery and fascinates viewers with an excellent visual due to a completely seamless design as well as high contrast and brightness rates. Due to the slim design, the

LED modules can be integrated very close to the wall with minimal gap space necessary. The bundle contains everything users need for care-free installation as well as front access to the LED modules for easy maintenance. Customers can therefore benefit from Sharp/NEC's long-lasting product quality.

With its 21:9 screen format, the NEC LED-FE009i2-104 is ideally suited

for corporate meeting applications, panoramic video conferencing layouts or multiple window usage. It can also be used with Microsoft Teams Rooms and the new Front Row layout, which makes it possible for everyone in a Teams Room – whether virtual or in-person – to see and react to chat comments during a meeting. Dynamic meeting views keep everyone connected to the content, and with each

other. Where formal presentations are paired with collaborative chats, digital canvases unleash group creativity, and everyone can connect face-to-face wherever they are. The 0.95mm fine pixel pitch of the NEC LED-FE009i2-104 means those joining remotely appear in perfect clarity as users take advantage of the Front Row layout.

"As businesses seek ways to improve efficiency through skill and knowledge sharing, they need to make meeting interactions between virtual and in-the-room meeting participants more natural for their employees", said **Nils Detje**, Product Manager dvLED Solutions at Sharp/NEC Display Solutions Europe. "Sharp/NEC products are optimised to deliver the best possible user experience in corporate meeting rooms. Fine-pitch dvLED like the NEC LED-FE009i2-104 with its ultra-wide format provides more screen space over a stretched single canvas. Therefore, it is the ideal technology to create an immersive meeting room experience by offering larger, more flexible and brighter screen configurations."



NUREVA INTEGRATES WITH EXTRON TO ENABLE SOUND LOCATION TRACKING

Nureva Inc., an innovator in advanced IT-first audio conferencing solutions, announced that its **HDL300 and Dual HDL300 audio conferencing systems** are now integrated with **Extron** control and automation solutions to deliver camera-tracking features that support hybrid working and learning. Extron used Nureva's sound location device API, available through **Nureva Developer Toolkit**, to update the Extron Control Systems Driver. The Extron control proces-

sor receives sound tracking data from the HDL300 and Dual HDL300 systems and sends a preset recall command to smoothly steer camera views to the location of the person speaking. The supplied audio location data leverages Nureva's patented Microphone Mist technology, which fills a room with thousands of virtual microphones so everyone can be heard everywhere in a space. Sound direction, location and level are reported several times per second to enable automatic camera adjustments based on the location of

the active speakers. This results in more refined camera positioning and switching and a better experience for remote participants.

Hundreds of cameras by leading manufacturers integrate the use of preset recalls with the Extron control processor. With the launch of this integration, Nureva HDL300 and Dual HDL300 audio systems can supply voice tracking data to any of those cameras with the simple installation of the Extron driver. Nureva's sound location device API was created as part of a program to work

with leading companies like Extron on steering cameras with Nureva audio systems to improve and simplify remote collaboration.

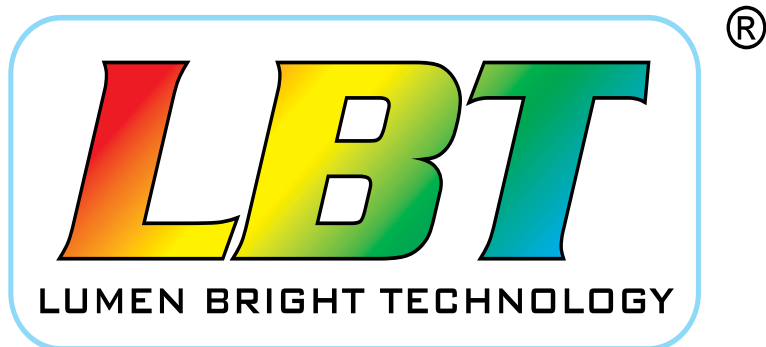
"It's exciting for Extron to combine our industry leading control and automation solutions with Nureva's audio conferencing capabilities," said **Casey Hall**, Extron's CMO. "By simplifying integration between products, our shared customers will benefit from better meetings aided by enhanced audio and control experiences."

"We are pleased to collaborate with Extron to deliver the simplicity and flexibility that our mutual customers demand for their hybrid spaces by combining our sound location data for third-party cameras with Extron control systems," said **Nancy Knowlton**, Nureva's CEO. "Using the intelligence built into Microphone Mist technology, our IT-friendly wall-mounted systems are delivering a level of camera tracking sophistication that, until now, was only possible with traditional pro AV solutions."



Extron driver for HDL300 systems leverages Microphone Mist technology to enhance tracking performance

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LG ELECTRONICS LAUNCHES LG MAGNIT

Created by using deep learning AI technology to improve the picture quality

LG Electronics (LG) the leading provider of innovative, customizable, and feature-packed Commercial Display & Digital Signage Products & Solutions announces the launch of the latest version of **LG MAGNIT**, a premium Micro LED. LG MAGNIT offers an immersive and eye-popping visual that makes the viewing experience memorable.

LG MAGNIT comes with Full Black Coating technology which delivers much deeper black than the conventional package LED signage. This enhances the colour vividness and makes the details which were hidden in the shadows appear, providing audiences a sense of immersion.

Commenting on the launch, **Hemendu Sinha** (Sr. VP and Business Head, Business Solutions) from LG Electronics said, "LG is always looking for ways to make work easier, more accessible, and more convenient. LG MAGNIT represents yet another step towards providing a comprehensive solution for offices. LG MAGNIT will offer users a variety of ways to work, interact, and entertain themselves. We are confident that this will be a game changer, thus, effortlessly transitioning the lives of the customers to the new ways."

Superlative Contrast Ratio

LG MAGNIT provides superbly high contrast ratio which is a vital part of the picture quality. It differentiates between the dark parts and the light parts which makes the content distinctive when using the

dedicated stand, providing the best-in-class audio-visual experience.

LG MAGNIT's narrowed wavelength allows the device to display uniform colours across the screen. It comes with enhanced Gamut Transfer technology which supports describes colours close to the original colour. The Alpha 7 Intelligent Processor adopted from LG's TV

by water drops, dust, static electricity, or physical impacts. The smooth screen surface of LG MAGNIT makes it more visually appealing.

Intuitive UI and Wireless Transmission Technology

Through wireless broadband transmission technology, it does not require

product to be reactivated simply by using a remote control.

The intuitive UI allows users to easily access the settings by using a remote control instead of connecting to a PC. It has been certified Crestron Connected for a higher level of compatibility with professional AV controls to achieve seam-

less integration and automated control, boosting business management efficiency.

LG MAGNIT's wide viewing angle and accurate colours make it more visually appealing and suitable for home entertainment purposes. Additionally, it consumes lesser power even when used 24x7 which proves to be beneficial for Command Control Centres, especially in various Corporate / BFSI / PSU & Government Establishments.

The LG MAGNIT comes with three pairs of wall mount accessories and a frame kit are provided as options. It is also compatible with LG Super-Sign CMS solution which is an all-in-one content management solution for content editing, scheduling, and distribution. Maintenance is easy and fast with the optional ConnectedCare service, a cloud service solution provided by LG.



LG MAGNIT is created with enhanced AI technology to deliver the best-in-class – in both form and function

technology recognizes and analyses the original content, thus, optimizing the clarity and sharpness of the content.

LG MAGNIT comes with HDR (HDR10, HDR10 Pro) support and offers a wider colour spectrum and greater contrast ratio that allow viewers to enjoy the lively content. Its structure further minimizes colour distortion according to the viewing angle. The product is coated with several layers of film which protects the LED chips from risks caused

signal and power cable connection is required between the cabinets. Cables are required for connecting the screen to its system controller and power. It also comes with Common Cathode Drive-IC which supplies the right necessary voltage to each R, G, B sub-pixel individually to minimize unnecessary power consumption. The main circuit parts inside the LED cabinet go to standby mode. This saves additional power consumption and enables the

NEWTEK DEBUTS NEW NDI NATIVE FLEX CONTROL PANEL

NewTek, one of the leaders in IP-based video technology and part of the Vizrt Group, strengthens its line of Control Panels with the all-new Flex. With **Flex**, operators can now take direct

control of PTZ devices, audio connections, audio and video mixing, and talkback – all connected with NDI.

No other NewTek control panel offers audio and video mixing, PTZ Control

and talkback – in one unit. With these controls built directly into the panel, it significantly reduces the margin for error.

The innovative features built into Flex offers operators greater precision and control than any other control panel available. With the addition of audio I/O, Flex instantly expands the on-board I/O of any TriCaster with the option

to add external sources directly to the NDI ecosystem. Flex is the only NewTek control panel to simply connect to a network with NDI and have control of any video switcher on that network, giving operators the ultimate in production freedom.

"Over the course of the last several years, the demand for high quality distributed production has grown beyond measure. We recognize the need for



(Continued on page 18)

ACT-3 Series

Wireless Microphone Systems



ACT 343



ACT 311

ACT 311 TC

ACT 312

GENELEC DELIVERS ELEVATED CUSTOMER EXPERIENCE WITH NEW VIRTUAL SHOWROOM

To complement its growing global network of physical Experience Centres, **Genelec** has introduced its **Online Virtual Showroom**, where visitors can explore a wide range of active loudspeaker systems and technologies in a set of stunningly realistic room settings. This allows customers across the Studio, AV, and Home Audio

segments to instantly access valuable Genelec information and resources in a unique and visually engaging interactive environment.

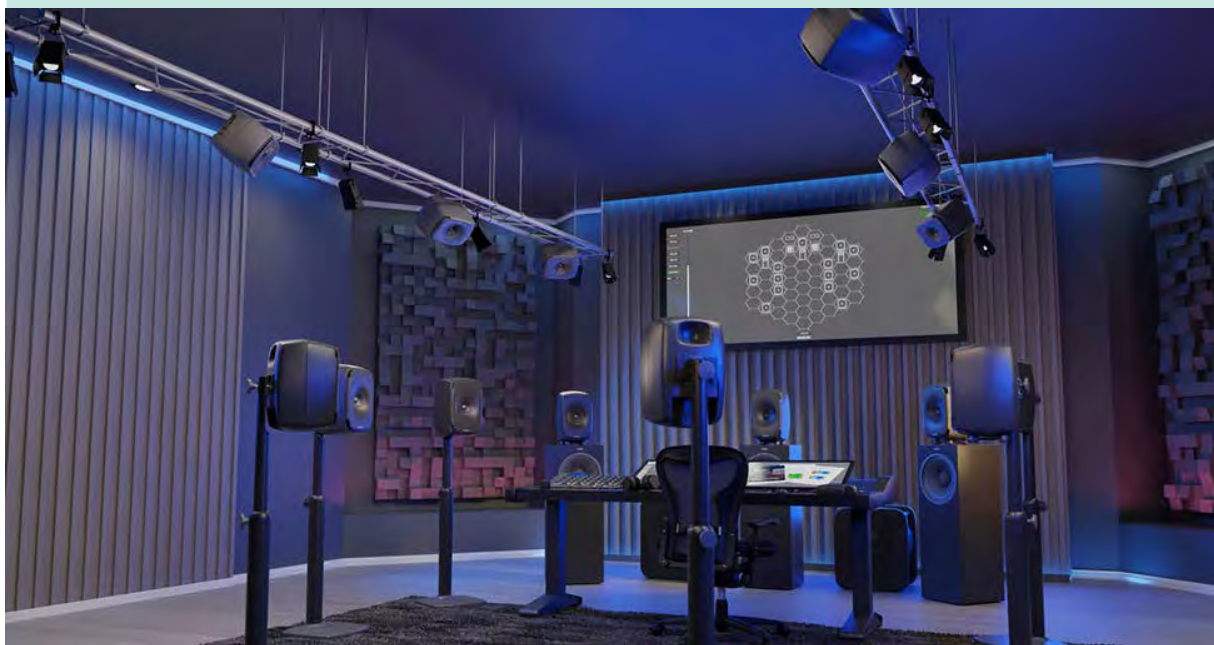
Hosted on the Genelec website, visitors to the Virtual Showroom can experience the latest in VR technology to navigate separate and distinct areas for Professional Audio Monitoring, AV Installation and Home Audio, which

showcase both stereo and immersive systems that comprise a carefully selected range of key loudspeaker and subwoofer models. Visitors can then access detailed product information, video content and valuable learning resources, at any time of day and from the comfort of their own environment.

"One of the powerful effects of the pandemic was to focus our minds

on how to communicate more effectively via digital marketing channels," comments Genelec Business Development Director **Ken Kimura**. "So, we used that period of enforced disruption to explore how to engage closely with our customers in the virtual world, and the Virtual Showroom was a natural result of that planning process – complementing our well-established website and social media channels."

With the return of face-to-face customer contact, Kimura feels strongly that Genelec now has a perfect balance of demonstration opportunities. He adds, "In this fast-paced digital world, the Virtual Showroom has all the benefits of interactivity and instant 24/7 access, while our Experience Centres represent the gold standard in personal contact and critical listening opportunities. Add to that the range of international exhibitions, roadshows, smaller regional events and dealer demonstrations, and there are now more ways than ever for customers to experience everything that Genelec has to offer."



Genelec's online virtual showroom allows customers to navigate a wide range of active loudspeaker systems and technologies in a seemingly realistic room ambience

CHRISTIE LAUNCHES INDUSTRY'S FIRST 22,500 LUMEN 4K UHD 1DLP PROJECTOR

Christie announced the **4K22-HS**, the newest addition to its HS Series of laser projectors. With 22,500 lumens, the new Christie 4K22-HS sets a new industry standard for brightness in 4K UHD 1DLP projection.

The Christie 4K22-HS narrows the gap between 1DLP and 3DLP projection, making it ideal for live events and venues that require high brightness, incredible colour performance, and professional features, including museums, auditoriums, and attractions, in a budget-friendly projector.

With Christie BoldColor+ technol-

ogy, the 4K22-HS delivers natural and realistic colours, deeper blacks, and enhanced colour uniformity. For applications that require multiple projectors, the new model features onboard Christie Twist for warping and blending, and

quick and easy set-up and alignment of multiple displays.

"We're excited to demonstrate the new 4K22-HS at ISE 2023," says **Suhan Bijai**, associate product manager, Christie. "We'll be showcasing it with our content management solution Pandoras Box for an interactive experience on the stand, demonstrating how our products are designed to work together to create powerful experiences."

The Christie 4K22-HS is compatible with **Christie Mystique**, an automated camera-based alignment and recalibration software tool that saves

users hours of painstaking work when installing, aligning, calibrating, and maintaining multi-projector systems, as well as the new **Christie Intelligent Camera**. Among several time-saving features, Christie Intelligent Camera can be used to trigger projector autofocus, automatically calibrate projector colour to optimize colour uniformity, and automate colour and brightness matching across multi-projector arrays.

For added versatility, the 4K22-HS features active and passive polarized 3D functionality, and advanced electronics deliver frame rates at 60Hz in 4K UHD and 240Hz at 1080p. It is compatible with all WUXGA HS Series lenses.



NEWTEK DEBUTS NEW NDI NATIVE ... (Continued from page 16)

operators to be able to adapt to any workflow and the Flex does just that – all with the power of NDI. Offering greater control and connectivity than

ever before, it's our most flexible and powerful control panel yet," comments **Chris McLendon**, Senior Product Manager, NewTek.

Not only can the panel connect to any switcher on a network by using NDI, Flex also offers operators all they need for distributed productions by work-

ing with all current TriCaster models; mastering control of a TriCaster 2 Elite as easily as it can a TriCaster Mini X and as at home in the studio or on the road, Flex scales with any production.



AV-ICN's Certified AV Specialist Course (CAVS) Galvanizing the AV Industry in Gujarat

Narendra Naidu, AV-ICN AV Architect of the Year 2022 and Mayank Jani, CEO of MNT Info Vision Pvt Ltd wholeheartedly support CAVS Ahmedabad edition



Narendra Naidu – Chairman & Managing Director, Rhino Engineers Pvt Ltd



Mayank Jani – Chief Executive Officer, MNT Info Vision Pvt Ltd



Kairav Adhvaryu – Technical Manager, MNT Info Vision Pvt Ltd



Satyanarayana Reddy – Technical Manager India, The Siemon Company

CAVS - Certified AV Specialist education course on AV systems, standards and protocols successfully conducted its first two editions at the **AV-ICN expo** in Mumbai in 2019 and 2022. **Narendra Naidu**, Chairman & Managing Director at **Rhino Engineers Pvt Ltd**, renowned for Statue of Unity audiovisual, visited the CAVS classroom and studied the curriculum. Naidu proposed to conduct the third edition of CAVS in Ahmedabad.

"CAVS is admirable in offering entrants into AV industry a primer that gives them basic knowledge. I am committed to education initiatives, and I commend AV-ICN and Anil Chopra for having the vision to create an India-centric curriculum that indeed is essentially required. Rhino Engineers Pvt Ltd will wholeheartedly support CAVS in Ahmedabad in providing a venue and hospitality and facilitate the full support of the Education Ministry and most importantly provide an opportunity to Gujarat's entire AV industry to participate in this unique and purposeful AV education programme," shared Narendra Naidu.

The third CAVS will take place at the Ahmedabad Management Association (AMA), Ahmedabad from **1st March, 2023 to 3rd March, 2023**.

The CAVS curriculum is fashioned into three days covering **Pro Audio** on Day 1, **Video** on Day 2 and **Integration Networking** on Day 3.

The CAVS has caught the imagination of the intelligentsia of the AV industry. AV industry thought leaders like Narendra Naidu of Rhino Engineers Pvt. Ltd., one of the leading AV & Multimedia Consultancy companies and **Mayank Jani** - Chief Executive Officer, **MNT Info Vision Pvt Ltd**, have wholeheartedly supported the CAVS vision and have joined forces with the CAVS management to advance the three-day training to greater levels.

Presiding over the training on Audio on the first day is Narendra Naidu. Facilitated by Jani's MNT Info Vision Pvt. Ltd., highly knowledgeable professionals - **Kairav Adhvaryu** – Technical Manager, **MNT Info Vision Pvt. Ltd.** and **Satyanarayana Reddy** – Technical Manager India, SAARC, **The Siemon Company** will preside over the training as master trainers for the second and third day of the three-day training program. Both trainers will share their experiences and give a detailed presentation on Video and Integration Networking respectively.

CAVS, Ahmedabad has a limited capacity of only 60 participants who will learn the course and appear for the exam on the third day at the end of the course. They will receive the AV Specialist certificate.

"CAVS curriculum and initiative to provide AV education certification to fresh new blood seeking a career in AV industry was very important for India as AV communication and integration and networking is exploding and it is very important to attract talent to our industry. I am honored that Narendra Naidu shares our vision. I do believe CAVS education needs to spread in every AV centric city in India. Ahmedabad is emerging as an AV centric city with a fair number of AV companies. CAVS will act as a catalyst to professionalize the AV environment," says **Anil Chopra**, Founder of the CAVS training.

For further information please contact:

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Udaipur City Palace Comes Alive with Splat Studio & Dataton

Splat Studio makes use of Dataton's Watchout software to highlight India's culture and heritage on the palace's façade

The G20 Sherpa Meet in Udaipur, India witnessed a congregation of world leaders, who partook in key conversations on sustainable lifestyle, technological transformations, and more. The City of Lakes - the host of the G20 Sherpa Meet - is already a heritage enthusiast's delight. But, the need of the hour was to enthrall the visitors with an immersive display of the above-mentioned heritage, but with a tinge of trailblazing technology. **Splat Studio**, a multidisciplinary design studio, took to hand the task of beautifying the historical walls of the Udaipur City Palace with 3D projection mapping using Dataton's Watchout software. **PALM + AV-ICN** spoke to **Hitesh Kumar**, Managing Director, Splat Studio to understand how the concept of 3D projection mapping was brought to life onto the walls of the palace.



A grand start to a grand affair: Udaipur City Palace appears animated with 3D projection mapping as it opens its doors for the G20 Summit delegates

The Initial Conceptualization:

For a seasoned design studio, it is a matter of immense glory to be associated with a large-scale project such as the G20 summit. Hitesh Kumar confirms the same as she talks about Splat Studio being approached for the project, "Splat Studio is in this industry from past 11 years and over time we have been blessed to develop strong relationships with our clientele and market value for the quality of work we deliver. Due to the reputation that we hold, our old client brought us on board for G20 projection - Udaipur City Palace."

The team at Splat Studio was tasked with creating a short but mesmerizing opening sequence for the G20 Sherpa Meet, highlighting Rajasthan's culture and heritage, underlined with futuristic innovations that are helping the state move forward with a fusion of tradition and technology. Kumar comments on the brief Splat Studio received from the client, "G20 Sherpa's Meet needed an enthralling opening segment to highlight Rajasthan's rich cultural heritage, as well as the country's emerging technology ecosystem and commitment to sustainable development goals. With the short brief provided, we were able to build a 5-minute show to mesmerize our delegates. This project was conceptualized and delivered in record 15 days, start to finish."

As is the norm, the team at Splat Studio performed a recce of the



Twelve Barco UDX-4K40 projectors used alongside Dataton's Watchout software resulted in a breathtaking 3D projection mapping at the venue

site - the Udaipur City Palace. The observations made by the team presented several challenges when it came to delivering a noteworthy 3D projection mapping. Hitesh Kumar recalls, "Our team went to the site and 3D scanned the facade for the projection and created an accurate digital replica, the key ingredient of our delivery. The facade was humongous and architecturally so intricate, that it took us two whole days to finish the 3D scanning."

He adds, "Considering the audience seating arrangement was quite a challenge as the distance between seating and the facade was quite packed, also spread lengthwise, so there was no single

Channeling Challenges Into Unique Opportunities:

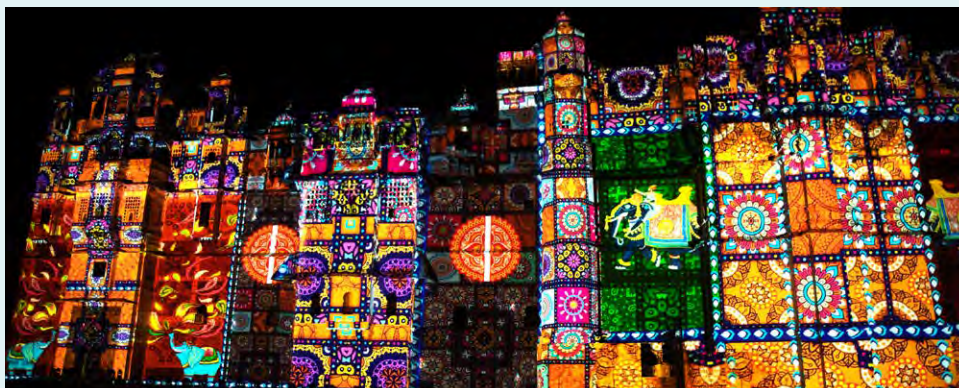
point of view (for 3D projection to work, we have to have a single point of view) so visualization had to consider this. Also, because people were seated close and there was ambient light, the projection resolution and the projector luminosity was an important factor, and we decided to use the best available option for both of these variables."

But, the team's unending dedication towards the profession allowed it to turn these challenges into opportunities. Kumar shares how the Splat Studio team accomplished the same, "The complexity of the facade was the major challenge, and we needed considerable time to develop the template required to begin the work. But the team stayed overnight at the site and made every minute count to bring the template to completion and ensure that the venue's limitations do not limit the precision and perfection of the 3D projection mapping."

Kumar adds that the audiovisual software and equipment used in the project played a major role in its success, "We used Barco UDX-4K40 projectors along with Dataton's Watchout 6.6 mapping for the show. In order to cover the facade, six projectors were needed. However, to boost the illumination, we double-stacked the projectors, making the projector count reach to twelve."

The Trajectory For The Indian AV Industry:

As India continues to rely more and more on audiovisual technology and software to attract a larger footfall to several events and deliver enchanting, immersive experiences to the visitors, the country will also continue to depend on multidisciplinary design studios like Splat Studio and AV software stalwarts like Dataton to put together these AV installations from behind-the-scenes.



It took two days for Splat Studio to finish the 3D scanning for Udaipur City Palace's facade - the result was truly spectacular

Talking about the promising trajectory that the Indian AV industry is moving forward on, Hitesh Kumar shares a remark filled with optimism, "The AV industry has steadily grown over the years, and the demand for good quality experiences has only grown with it, because of the technological upgrades and the exposure. People expect better experiences, and technology access has also become much easier. We expect that in the next five years, we would not only be creating world class experiences here in India, but also deliver our professional services in this domain across the globe. The technology development will also enable us to go further and create world standards."

For now, Kumar is ecstatic that Splat Studio's 3D projection mapping, accomplished the right way with Dataton's Watchout 6.6 has garnered praise from everyone present at the G20 Sherpa Meet. She concludes, "It was a pleasure to work at such a prominent occasion, and we feel fortunate that we were able to play a significant part in the G20 Sherpa's meeting because our 3D projection mapping was the star of the show and received praise and appreciation from everyone."

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AVINASH OAK SET TO LAUNCH MEMOIR TITLED 'UNSPoolING MEMORIES'

Avinash Oak, Sound Engineer and Owner, AVISOUND, is a well-reputed name in the world of music. A Life Member of the Audio Engineering Society (AES), Founder Member of the India Chapter of AES, and Lifetime Achievement Award recipient of Indian Recording Arts Awards (2015), Oak has worked as a Sound Engineer for several feature films, Indian classical, ghazals, and Indi-pop albums, Radio and television commercials, and more. To bring together his myriad life experiences and to translate all of his life's memories into ink, Avinash Oak is set to launch his memoir titled, '**Unspooling Memories: Sounds & Music of My Life**'.

Sharing more about the idea behind naming his book thus, Avinash shared, "I have tried to dip into the pool of memoirs and come out with a series of select few. It is but natural for an 'analog' man like me to use some relevant motif from my professional life. What could be a better choice than the media I used most – spool tape; then it was in a spur of a moment I coined a new – 'Unspooling'. Thus the name – Unspooling Memories."

Sharing more about the overarching theme of his book that spans his life's journey in the field of music, Avinash commented, "It is a broad overview of our music industry; especially Bollywood, Indian Classical and Gazal music. What ties this book together are anecdotes about the problems faced by the artists, the musicians and sound engineers in the music industry. The stories of the interactions amongst them are as entertaining as they are informative."

A Deeper Insight Into A Sound Engineer's Life

Describing how the chapters in his books are divided after an intense deliberation, Oak emphasises, "Apart from a very 'generous' foreword by none other than the AD Guru, Bharat

various shows I designed soundtracks for."

He further adds, "The next chapter is 'AES – Audio Engineering Society, India' which has all the details about forming and running the society for almost 30 long years! The seventh

But the story doesn't end there. Avinash Oak delves further into the last three chapters from his upcoming book, "The next spool is 'Western Outdoor – Side B', which is an apt conclusion to my studio life. The penultimate chapter is titled, 'Life After Western Outdoor', where I recount my slightly challenging but vastly interesting experiences with The Neosonic Studio, ZIMA, Soundideaz and my own studio in Pune called Studio Samarth. The book ends with a chapter called 'My Personal Spool' – where I share stories of my achievements and 'occupational hazards' that all sound engineers face at one point or the other."

Every good book has a bibliography. Mine has one too – it's called 'Discography' – which has the list of the albums I recorded and remember.

A Resource For Future Sound Engineers

Talking about how the upcoming book will be a relevant source material for aspiring sound engineers and pro audio enthusiasts, Oak concludes, "Unspooling Memories will be of interest to the aspiring sound engineers and the Gen-Z pro audio enthusiasts, especially because they may find themselves in so many situations which I initially faced. They may be able to take a cue out of these pages and make positive decisions, I am sure. The pro audio enthusiasts may gain an all-encompassing overview of the recording industry as a whole and a special insight into the professional studio life."

Unspooling Memories will be available to purchase at the end of February, 2023.



Avinash Oak talks to PALM + AV-ICN about his upcoming book 'Unspooling Memories'

Dabholkar, the book is divided into 13 chapters - of course I call them 'spools'. This is more appropriate and very much in line with the title of the book. The 'unspooling' starts in Nagpur, my hometown, my entry in the famed FTII, Pune and my formative years there. The second spool is named 'Mumbai – Roti Kapada aur Makaan', the film which was my first assignment as an assistant in Bollywood. The third spool is 'Western Outdoor Studio Side # A'. Next chapter is 'Ghazal & Jagjit Singh'. Obviously my recording journey can't be complete without him. Next spool is 'Sound & Light Show' depicting the

spool is called 'Indian Classical Music', my reminiscences of several magnificent artists and my recording sessions with them. Next spool is called 'Filmi', where I reveal about the vast number of song recording sessions which took place at WOA. The ninth spool is about the two most revered personalities from Indian film music industry – Lata Mangeshkar & Asha Bhosle. The next spool is titled 'Padmaja & the Two Prime Ministers', where I shared very interesting anecdotes about my poetry recording sessions with the late Mr. Atal Bihari Bajpayee and Mr. V.P.Singh alongside Padmaja Phenany Joglekar."

AUDIO-TECHNICA INTRODUCES AT8175 POP FILTER FOR 20 SERIES MICROPHONES

Audio-Technica, a leading innovator in transducer technology for over 60 years, introduces the **AT8175 Microphone Pop Filter**.

Designed for up-close use to assist in reducing excessive pressures on the microphone's element, the AT8175 is sleeker than standard pop filters and custom-designed to clip onto the front of A-T 20 Series side-address mics. Perfect for recording, podcasting or

streaming applications, the AT8175 provides added protection against plosive consonants (such as "p's" and "b's," etc.), without any compromise to the audio quality.

The AT8175 is compatible with the following A-T 20 Series microphones:

- AT2020 Cardioid Condenser Microphone
- AT2020USB-X Cardioid Condenser USB Microphone

- AT2035 Cardioid Condenser Microphone
- AT2050 Multi-pattern Condenser Microphone
- AT2020USB+ Cardioid Condenser USB Microphone

The AT8175 measures 74 mm (2.9") × 63 mm (2.5") × 88 mm (3.5") and has a weight of 31.1 g (1.1 oz).





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HARMAN LUXURY AUDIO UNVEILS JBL 4329P STUDIO MONITOR POWERED LOUD-SPEAKER AT HARMAN EXPLORE

HARMAN Luxury Audio Group unveiled the new **JBL 4329P Studio Monitor Powered Loudspeaker** at **HARMAN Explore**, held from Jan. 4-7 in the Virgin Hotels in Las Vegas. A completely self-contained, amplified loudspeaker system, the 4329P

each featuring a patented **JBL 2409H** 1-inch compression driver, High-Definition Imaging (HDI™) horn, and **JW200P-4** 8-inch pure-pulp black paper cone woofer with a cast frame. Each speaker is powered by a 300W amplifier, with 250W delivered to the woofer and 50W

streaming engine provides both wired and wireless network audio capabilities via built-in Google Chromecast, Apple AirPlay 2, and Bluetooth 5.3 aptX™ Adaptive audio. A 24-bit/192KHz high-resolution DAC ensures music comes across with the highest fidelity, while MQA technology enables playback of MQA audio files with the sound of the original master recording. For those with extensive music libraries, the 4329P will be certified as a Roon-ready product.

In addition to premium wireless audio, the 4329P provides extensive connections for analog and digital physical sources, including USB, optical, and 3.5mm stereo inputs, as well as a professional-grade combination XLR / 1/4-inch TRS phono input for use with balanced or unbalanced signals. The 4329P is available in a choice of natural walnut or black walnut furniture-grade wood veneer finish options.

The 4329P takes listening to the next level with its step-up compression driver, larger 8-inch woofer, and twice the amplifier power versus its smaller sibling.

These enhancements deliver effortless dynamics, powerful deep bass response, and crystalline detail that will reveal details you've never heard before in your favorite recordings. The performance of the 4329P rivals that of much larger and far more expensive passive loudspeakers and does so without the added complexity of outboard components.

"With its built-in amplification, DSP, streaming engine, and variety of analog and digital inputs — all in one complete system — the 4329P Studio Monitor Powered Loudspeaker is an extremely versatile solution that opens up a world of possibilities for all music lovers," said **Jim Garrett**, Senior Director, Product Strategy and Planning, HARMAN Luxury Audio. "Whether it's enjoying hi-res streaming from their favorite service or listening to physical sources like turntables and CD players, the 4329P makes it simple for everyone to experience the joy of music exactly how they wish to experience it."



combines hi-res streaming audio with extensive wired and wireless connectivity options, while patented JBL acoustic technologies render sound with incredible accuracy and powerful dynamics.

The 4329P includes two speakers,

to the compression driver. Both are accurately controlled by a sophisticated digital signal processor (DSP) that assures each driver blends seamlessly to create a dynamic and immersive listening experience.

The speaker system's integrated

STUDIOMASTER LAUNCHES INSTACUBE 4 / INSTASUB 8 MINIATURE COMMERCIAL AUDIO LOUDSPEAKER SYSTEM

With the launch of its **INSTACUBE 4 / INSTASUB 8**, **Studiomaster** introduces a dedicated ultra-low profile, high performance, commercial audio loudspeaker system to its professional loudspeaker catalogue.

The miniature **INSTACUBE 4** aluminium enclosure, measures just 145 x 156 x 143 mm, complete with its removable mounting U-bracket. With a custom designed 4" neodymium, 2-way coaxial loudspeaker, comprising a 35 mm voice coil MF and 1.3" PEEK high-performance composite film diaphragm HF driver arrangement, the **INSTACUBE 4** boasts 100 W rms / 400 W peak power handling, up to 87dB continuous SPL output, and a 100 Hz – 20 kHz (-10 dB) frequency response.

The ultra-slim **INSTASUB 8** bass reflex compact subwoofer is ceiling,

wall or floor mountable, and can be positioned under furniture. Although measuring just 515mm x 200mm x 425mm, the sub features a custom design 8" loudspeaker. With a 38 mm high temperature resistant voice coil, the long-stroke driver also features a unique aluminium modulation ring that reduces magnetic distortion, further contributing to up to 200 watts of very high-quality deep bass.

Studiomaster General Manager **Patrick Almond**, commenting on the introduction of the **INSTACUBE 4 / INSTASUB 8** combination, stated, "In extending our loudspeaker offering



Studiomaster **INSTACUBE 4 / INSTASUB 8**

into the dedicated commercial audio segment, we have come to the market with a system highly representative of our brand values of highly competitive cost-performance ratios, and levels of design and build quality. Studiomaster distributors and dealers have long

come to know and trust. The product design is one of high performance and efficiency, with exceptional ease of deployment and operation; lowering the barriers to achieving effective BGM and AV audio coverage in a wide breadth of application environments."

To feature your **Studio Install** stories in **PALM + AV-ICN** magazine
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AUDIENT EXPANDS EVO WITH 8-CHANNEL SMART MIC PREAMP: SP8

EVO by **Audient** announces the arrival of **EVO SP8**, an eight channel Smart Preamp with AD/DA. Billed as the perfect expander for your audio interface, SP8 is the newest addition to the EVO range.

"Bigger sessions demand more channels and expanding your existing audio interface via ADAT might be the most cost-effective solution to scale up your studio," says Audient/EVO marketing director, **Andy Allen**. "SP8 does exactly that, giving you eight studio quality analogue preamps, a modern and intuitive user experience with exceptional audio performance across the board."

With SP8's eight mic/line inputs, eight line outputs and 2 x ADAT I/O connections, this 8 channel smart mic preamp provides enough I/O to tackle multi-mic sessions like recording drums or even a full band.

As with all EVO products, SP8 benefits from the addition of Smartgain, an innovative and time saving feature which gives the option to automatically set the gain with the touch of a button. "As with EVO 16, EVO SP8 can automatically set the gain for all 8 channels at

once," explains Andy, highlighting the added advantage for musicians who have multiple mic inputs (drummers) or line inputs (synth players).

"If you're expanding your current non-EVO audio interface, you get up to eight channels of simultaneous Smartgain with SP8, which not only takes the guesswork out of setting your levels, but also saves you time. If you are pairing two SP8s with your EVO 16 then

you have Smartgain on all 24 channels! Soundcheck an entire band in less than 20 seconds. Imagine how that could transform a session and allow producers to stay focused on what's important - making music," says Andy.

There's also a high resolution, full-colour LCD screen built into the unit. "Navigate SP8's hardware features with blazing speed, courtesy of our Motion User Interface. The wide angle

screen intelligently displays information as you need it, transforming EVO SP8 into a fully immersive, easy to use Smart Preamp - the first of its kind," Andy continues. With the option to view the channel status and keep an eye on metering levels, Motion UI uses a centralised one-knob system to adjust all EVO SP8's hardware parameters.

"We're calling it the mic preamp of the future," says Andy. "Our powerful EVO Mic Preamp technology combines all the sonic advantages of a studio-grade analogue mic preamp with digitally controlled tactile precision, so you can set your gain with pin-point accuracy - right down to the decibel." EVO Mic Preamps provide 58dB Mic Gain, while its advanced 32-bit converter technology offers 121dB dynamic range.

Just like EVO 16, the meticulously designed solid steel chassis with non-slip rubber feet means EVO SP8 fits comfortably either on a desktop, in a portable rig or as a permanent fixture in the studio. Optional rack-ears make it that bit more flexible.



SP8, the latest addition to Audient's EVO Range, offers the perfect expansion to any existing audio interface

UNIVERSAL AUDIO NOW SHIPPING UA SPHERE DLX & LX MODELING MICROPHONES

UA's newest line of studio condensers model the sound of classic mics for professional vocal and instrument recordings

Universal Audio Inc. (UA), one of the worldwide leaders in audio production tools including Apollo and Volt audio interfaces, UAD plug-ins, UA mics, and UAFX guitar products, announced that the

UA Sphere DLX and **Sphere LX microphones** are now shipping worldwide.

UA Sphere mics allow users to change mic type, polar pattern, and other characteristics even after tracking. Each UA Sphere condenser

features models of classic mics from Neumann, Telefunken, AKG, Sony, and more, with Dual Mode for blended mic combinations, Realtime UAD Processing for low-latency recording with Apollo interfaces, and included presets

for getting pro sound quickly.

"With our expertise in analog modeling for our UAD plug-in platform and Chris' pedigree in capturing the sound of sought-after vintage studio mics, we knew we were on to something special," said **Bill Putnam Jr.**, CEO/Founder of Universal Audio. "With the addition of new UA Sphere models to our mic line, we can inspire even more creators with legendary sound."

The UA Sphere DLX features emulations of 38 classic studio mics, while the UA Sphere LX offers 20 mic models in a smaller package. Each features IsoSphere technology for reducing room coloration, along with gold-sputtered diaphragms and the lowest noise of any mic in its respective class.

Each UA Sphere condenser features models of classic mics from Neumann, Telefunken, AKG, Sony, and more.



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Every year, **PALM + AV-ICN** collates new product launches from the world of pro sound, audiovisual, and lighting. In 2022, several well-reputed brands introduced groundbreaking, game-changing products and technologies that elevated the pro sound, AV, and lighting industry to bigger, better heights. In this cover story, we bring to our readers the cream-of-the-crop – the top 50 products of 2022 from the global pro sound, audiovisual, and lighting industry.



TOP 50 PRODUCTS & TECHNOLOGY

Global Pro Sound, Audiovisual & Lighting Technology

Adamson Systems IS213 Subwoofer

The IS213 is a high-powered yet ultra-compact subwoofer that can fit into any compact space, making it an ideal choice for applications that require ground stack configurations. Housed within the subwoofer's enclosure is a lightweight pair of 13" ND13-S Kevlar Neodymium drivers that use the brand's Advanced Cone Architecture. With two Speakon NL4 connectors on the front and the back (and barrier strips available on request), this subwoofer is designed to deliver clean audio without any hassle. Enclosed inside a cabinet constructed from marine grade birch plywood and aircraft grade aluminium and steel, the subwoofer ensures ample sturdiness. The IS213 also features removable handles and rubber scuff guards at the top and on the bottom for easy vertical stacking.



AHUJA ASL-3000R

Made in India, the AHUJA ASL-3000R is a compact, reliable and easy-to-assemble PA Lectern System with built-in 90W Class D amplifier. Ideal for sound reinforcement needs of small auditoriums, hotel banquet halls, conference and seminar rooms, educational institutions, and places of worship, AHUJA ASL-3000R features 18" detachable gooseneck condenser microphone and a reading light for the speaker at the Lectern top, a built-in Dual Channel VHF wireless receiver & two VHF wireless handheld microphones, a combo socket for connecting a wired microphone through a 6.3mm (1/4") phone plug or a line source through an XLR male plug, a built-in digital MP3 recording, playback and Bluetooth facility, a USB outlet on podium top for charging of mobile phones, and a rugged & stable floor standing base.



Airtame Hub

Airtame Hub is a comprehensive, seamless hybrid meeting room solution that supports both Microsoft Teams and Zoom on the same room system. With a wireless conferencing system, the Airtame Hub makes collaboration lot easier and more enjoyable. Featuring a built-in PoE+, the Airtame guarantees a flawless audio and video connection; and while the Airtame Hub needs to be connected into the user's laptop, the laptop actually only works as a remote control as the meeting runs on the small handheld device, saving your laptop's battery in the long run.



Hub
connec-
tion

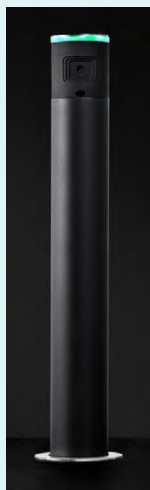
Allen & Heath AMH-32 Audio Matrix Processor

Featuring 32 zone outputs, audio networking options, and Acoustic Echo Cancelling, the AMH-32 Audio Matrix Processor is the right fit for corporate, education, and hospitality requirements. On top of remote controllers, 3rd party integration, and GPIO, the AMH-32 also comes with a front panel screen as well as 8x programmable SoftKeys for preset recall, source select, and intuitive volume control.



Arthur Holm DynamicMCS

Arthur Holm's DynamicMCS is a motorized HD-SDI video camera with a 45-degree coverage, loudspeaker, and an omnidirectional microphone, all-in-one, ideal for furniture integration in conferencing rooms. Discreet and sleek while being functional, the DynamicMCS is designed to make videoconference feel more natural and comfortable. The DynamicMCS's body is designed in steel and composite materials in a non-reflective black finish, which helps it stays easy on the eyes while delivering meeting equity in the right measure.



Audac VIRO5

The VIRO5 from Audac is a 2-way coaxial loudspeaker that is ideal for both indoor and outdoor applications, delivering true-to-nature audio reproduction. The VIRO5 features cable glands with rubber grommets to XLR connections (optional) and 70/100V transformer (optional). Constructed with high grade aluminium, the VIRO5 ensures durability while eliminating any audio distortion. The grille over the loudspeaker's body is covered with a hydrophobic cloth that shields it from all external environmental effects. The presence of sealing rubbers and drainage holes at the bottom of the speaker makes the VIRO5 IP55 compliant.



Audeze MM-500 Professional Headphones

The Audeze MM-500 Professional Headphones are cushioned with premium, extra-plush, leather earpads, a spring steel headband that can be adjusted, and an aluminium body to offer that air of sophistication. With planar magnetic drivers, lightning-fast transients, an always-accurate frequency response, reliable mix translation powered by Audeze's patented technologies, the MM-500 delivers an audio experience unlike ever before.



Audio-Technica ATND1061DAN Beamforming Ceiling Array Microphone

An ideal fit when it comes to achieving clear, amplified sound in conference rooms, large and small meeting spaces, and boardrooms, and more, the ATND-1061DAN is easy to install, set up and use. With six individual output channels, which can together be configured with up to 32 microphone pickup zones, the ATND1060DAN offers the flexibility to achieve clean sound with a vast variety of room sizes and meeting types. The ceiling array microphone also features the brand's proprietary VAD (Voice Activity Detection) technology, which allows the microphone to distinguish between a human noise and white noise (such as paper shuffling). The microphone also comes with an onboard DSP, acoustic echo cancellation, automix, noise reduction, 4-band EQ, and automatic gain control.



Audient iD44 (MK II)

Audient upgraded the iD44 with a 9dB improvement on the THD + N figure of the ADC to offer the users cleaner audio with lesser than before aural distortion. With two optical inputs and output connectors, the iD44 (MK II) is set to give the user a wide range of choices for expansion. Supporting ADAT and SPDIF, the iD44 (MK II) comes with up to 16 channels of mic preamps. With JFET Instrument Inputs and four-line outputs, the iD44 (MK II) is an audio powerhouse.



Austrian Audio Hi-X60 Professional Closed-Back Over-Ear Headphones

Austrian Audio's Hi-X60 is a professional grade reference headphone ideal for FOH, recording, mixing, and mastering. Within the four walls of the studio, the closed-back isolation offered by the Hi-X60 prevents sound from seeping out into the surroundings and interfering with the mic capture. During FOH, the headphone's high passive noise suppression creates and maintains an optimal signal-to-noise ratio, thereby producing a listening-friendly atmosphere. With replaceable earpads, detachable cable, and cut-out headband makes for a comfortable listening experience for the user.



Avantone Pro CLA-400 Studio Reference Amplifier

A class A/B amplifier, the Avantone Pro CLA-400 Studio Reference Amplifier is a high resolution, high output, full-range system designed in the old-school studio style. The amplifier is also equipped with several VU meters, high grade Japanese components and a toroidal transformer linear power supply.



With the capacity to generate more than 400 watts per channel into an 8-ohm load, the CLA-400 is an ideal fit for all medium to large

speakers within a studio environment. The amplifier is convection-cooled, making it easier for the user to use it in the same room as the monitors.

Barco TruePix LED Video Wall

Barco's image processing technology Infinipix Gen 2 and premium LED technology combine to create the TruePix, available in four pixel pitches – 0.9 mm, 1.2 mm, 1.5 mm, and 1.9 mm. With panels that feature a screen diameter of 27.5" and a 16:9 aspect ratio, the TruePix LED video wall is a product of reimagined design and engineering. Featuring Barco's camera-based alignment tool, the TruePix ensures ease of installation without unnecessary warping and mechanical stress. Barco's proprietary image processing technology ensures smooth, seamless, clear images and offers optimal comfort to the viewers without causing any eye fatigue. TruePix's 4-way inter-tile failover system, data protection software, and a reduced carbon footprint means uninterrupted viewing experience with zero downtime.



Beta3 VX12a 12" Two-Way Full Range Active Speaker

Designed for install applications as well as portable applications, the VX12a features an integrated polymer PVC cabinet construction that not only lends it its durability, but also natural, high-performance sound. With three performance modes – concert, club, and monitor – 1000W amplification power and a Class D amplifier module, the 12" woofers deliver an acoustic experience like never before.



Bose Videobar VB-S All-in-one USB Conferencing Device

An all-in-one video conferencing device, the Bose Videobar VB-S is ideal for installation in rooms up to 3x3 metres. Consisting of four beam-steering microphones, one 4K ultra-HD camera, and signature Bose sound, the VB-S aims (and



delivers) a clear, audible meeting experience. The VB-S USB Conferencing Device comes in Group Mode and Individual Mode – the former keeps the entire room in view while the latter follows the individual presenter for a more focused sonic and visual clarity. The videobar comes with a proprietary Bose transducer, wireless connectivity options, and a table stand along with a wall-mount kit, making it easy for the user to install and use the device.

Celestion CF1025BMB

A 10-inch mid/bass driver, constructed from cast aluminum chassis and ferrite magnet, as the name suggests, is the perfect equipment to achieve true-to-nature mid/bass applications. Equipped with a modified T-pole profile, the CF1025MB delivers lower distortion performance with greater BI symmetry. The CF1025BMB also features a weather-resistant coating in the form of glass-loaded paper cone and comes with an airflow vented magnet assembly, especially assembled for dynamic heat dispersion.



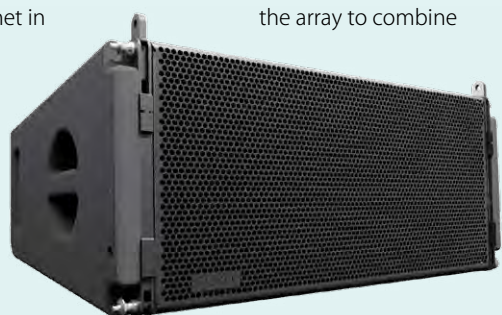
DAS Audio LARA-SUB

DAS Audio's LARA-SUB is a cardioid powered subwoofer featuring a pair of DAS 18UXN neodymium low frequency transducers. A 3-channel Class D Amplifier powers the LARA-SUB. The amplifier comes with power factor correction to help reduce power consumption while improving its reliability under all operating conditions. To top it all up, the subwoofer's cabinet construction is made even sturdier with birch plywood and an exterior coating of the durable ISO-flex™. The LARA-SUB stays protected with metal grilles made from water repellant fabric. A pair of recessed handles on either side of the subwoofer makes it easy to carry the unit from one place to the other.



EAW KF210

KF210 is a medium format two way passive line array speaker system which supports a wide range of PA applications right from Live events to permanent AV installations like Auditoria & Halls. EAW has developed patented Isophasic Waveguide that allows each cabinet in the array to combine seamlessly providing even sound output to every seat in the listening area. Apart from EAW's core inherent technologies like DYNO & Focussing, each loudspeaker in the system offers both Passive & Bi-Amplification mode. The metal hardware rigging and mounting



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system comes in built with each loudspeaker unit which allows smooth and quick installation for technicians. Each cabinet comes with dual 10" 2.5" VC woofers and a 1.4" exit 3" VC compression driver with Isophasic Waveguide. With a freq range of 55 - 20KHz it can deliver a Max SPL of 141 dB with 650W of power handling. KF210 cabinets are painted with heavy duty Polyuria Epoxy coating on baltic birch wood. They come with IP55 outdoor use rating with corrosion resistant hardware, so that KF210 speakers remain new for a longer period of time.

Epson EB-PU2220B 3LCD Projector With 4K Enhancement

The world's smallest and most lightweight 20,000 lumen projector, the EB-PU2220B is ideal for installation cases in large venues. The laser projector, featuring 4K enhancement, is elevated in form and function with a sleek, black cabinet and a 3G-SDI input and output to allow easy accommodation of long cable runs and daisy chaining along with a mechanical shutter to protect the projector's body during laser light shows. Not only does the projector offer 20,000 lumen, ultra-bright images, it also delivers a maintenance-free laser light source for up to 20,000 hours. Its hermetically optical engine that is sealed shields the lenses from dust. With an in-built NFC functionality and an optional PixAlign camera, the projector is easy to set up and operate.



Erthpot NCS (Novo Conference System)

Novo Conference System is a wired simple and affordable conference discussion system with exquisite design focusing on plug n play operation. Its various applications include small to medium conference rooms, assembly halls & classrooms. The system can handle up to 110 microphone units simultaneously with many utility



settings like automatic sound activation, time limiting, number of active speakers, and more. All the units communicate with the central controller using a standard STP Cat5e network cable which makes it very cost effective and easy access to troubleshoot. The discussion units are engineered in high quality aluminum alloyed metal die-cast which give them the robust and long lasting feel. All these units come with integrated high sensitivity shotgun microphone with a status light ring (red when mute, green when active) at the bottom. This new generation of conference system allows to connect up to 4 video cameras to the system who can follow the active speakers in the room.

Focal Solo6 2-Way Monitor

With a full-range Focus Mode, the Focal Solo6 2-Way Monitor functions like two monitors in one body, thus reducing the need for more space during a performance and enabling ease of installation and operation. The Solo6 features an inverted dome Beryllium tweeter, a protective grille formed in the shape of 'M', a woofer with a cone shaped like 'W', and a frequency



range of up to 10 kHz. The brand's patented Tuned Mass Damper (TMD) Technology reduces distortion up to 50% in the frequency range of 1 kHz to 3 kHz, offers a high-pass crossover, an automatic standby mode that is disengageable, and a 160Hz crossover for console reflections. The best part is that the Solo6 also come with inserts that allows the user to mount it on the wall and over the ceiling too in order to enjoy an enhanced listening experience.

HK Audio POLAR 8

HK Audio's POLAR 8 is a compact column system that is easy to transport and easy to setup, eliminating the hassle that comes with rigging audio equipment for stage engineering. With 1200 watts of peak power, a three-channel mixer, and a Bluetooth TWS, the POLAR 8 is ideal for musicians, DJs, and entertainers working on small stages, rehearsal rooms, garden parties, or seminar rooms. With six 2.5" neodymium speakers, 1" voice coils, dispersion angles of 120 degree x 45 degree, and a Class D power amplifier, the POLAR 8 is powerful and stable, deliver an ever-consistent sound at any given point in time.



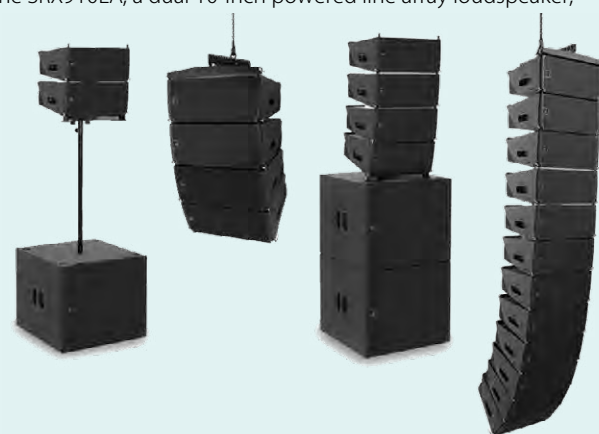
HYPERVSN SmartV

Dubbed as the company as "the future of digital signage", the HYPERVSN SmartV is an AV solution, consisting of HYPERVSN SmartV Solo M, HYPERVSN SmartV Solo L, HYPERVSN SmartV Wall M, and HYPERVSN SmartV Wall L, that features ultra-fine pixel pitch, brightness up to 3000 nits, HDMI and live streaming capabilities, interactive functions, and a lightweight, portable design. With HYPERVSN SmartV's HDMI, voice control, camera-based control, and tablet control, the user can design any avant-garde content such as a holographic game, a 3D model, or an interactive app, that can also be zoomed-in or zoomed-out.



JBL Professional SRX900 Series

Consisting of four products – the SRX906LA, a dual 6.5-inch powered line array loudspeaker, the SRX910LA, a dual 10-inch powered line array loudspeaker, the SRX918S, an 18-inch powered subwoofer, and SRX928S, a dual 18-inch powered subwoofer – the SRX900 Series is a reliable family of pro audio equipment for rental companies, musicians, and fixed installations where a combination of performance and portability is paramount. The Series' high-power-handling transducers, consisting of neodymium magnet structures, ensure low distortion, superlative output and high audio fidelity. SRX900's cabinets are constructed with care to deliver ease of use, speedy rigging, streamlined transport, and minimum space displacement.



JH Audio Sharona In-Ear Monitor

JH Audio's first-ever 16-driver configured and a 4-way crossover in-ear monitors, the Sharona comes with Knowles RAU Quad Supertweeter for an extended treble response. Sharona is designed to deliver a super-accurate, well-rounded sound signature with a fantastic punchy low-end and a smooth-as-butter mid-range. The Sharona also comes with the FreqPhase Technology to produce the most accurate IEMs, Soundrive Technology that allows the brand to retain the smaller size of the custom IEMs while housing up to 12 drivers on each side, and an Acoustic Sound Chamber, a 3D printed tubing system that keeps sweat away and reduces the need for extensive in-ear monitor cleaning.



JTS CM-214iKD

The JTS CM-214iKD is a lightweight headset microphone for kids. But with features such as an omni-directional pickup pattern, an adjustable steel headband, a detachable cable, a drip ring, a smooth frequency response, and zero proximity effect, the JTS CM-214iKD assures a durability of form and function in a single pro audio product.



L-Acoustics LA7.16i Multi-Channel Amplified Controller For Install

A high-efficiency Class-D amplifier, the LA7.16i is a 16x16 architecture amplified controller ideal for permanent installation cases. Every single one of the 16 output channels in the amplifier can offer up to 1300 W at 8 ohms or 1100 W at 4 ohms. The amplifier also features L-SMART, a software that uses predictive modeling algorithms in order to manage the PSU and all the individual amplification channels.



The LA7.16i also comes enveloped in a compact 2U chassis in order to use as little rack space as possible and features multiple customized benefits of installation applications, such as loudspeaker monitoring, management, and protection, terminal block connectors, GPIOs, and a backup 24 V DC input. The LA7.16i is also Milan-certified and supports the Milan-AVB seamless network redundancy.

LD Systems DAVE 18 G4X Compact 2.1 Powered PA System

This compact PA, which consists of an 18" subwoofer and a pair of 8" satellites, also features an integrated six-channel mixer with a slew of important updates. Courtesy integrated Bluetooth for ease of streaming through a tablet or a smartphone, the PA also offers wired and wireless options to create a vast variety of setups and combinations vocals, audio sources, and instruments. With the option to use a digital SPDIF stereo input, the user can play as well as control backing tracks along with sound effects. The inputs at channels 5 and 6 also functions as a



karaoke system or a spot for TV connection for an immersive aural experience.

Lewitt Audio LCT 1040

On its official website, the brand has labelled the LCT 1040 as the "ultimate microphone system". Which sounds believable to the ears, since the LCT 1040 is designed with one purpose in mind – to adapt to any sound source. The recording microphone has been developed with close collaboration from Grammy-winning studio maestros, features four all-analog tub characteristics – clear, warm, dark, and saturated, comes with a detachable remote control, and blendable FET circuit as well as a seamless polar pattern control. Moreover, the LCT 1040 can be rotated to 360 degrees when shock-mounted, while its high-performance magnetic pop filter shields the capsule from unwanted moisture and plosives.



Leyard Luminate Pro Series Indoor & Outdoor LED Video Walls

Ideal for live events, large venues, as well as fixed installations, the Luminate Pro Series from Leyard is modern, versatile, and high caliber in the world of LED video walls. The LED video wall can be installed in a variety of ways – it can be stacked, floor-mounted, wall-mounted, and attached to customized frame styles. With magnetic handles and cabinet with an embedded quick-lock system, the Luminate Pro Series enables a single-person installation. The Series features pixel pitches from 1.9 mm to 3.8 mm in the range of indoor LED video walls and pixel pitches from 2.9 mm to 10.4 mm in the range of outdoor LED video walls.



Martin ERA 150 Wash

An ideal lighting solution for touring, installs, as well as rentals, the Martin ERA 150 Wash is a moving-head LED Wash fixture that offers the best-in-class lumen output, a full-gamut colour calibration, and a high-intensity narrow zoom for accurate colour reproduction and colour temperature control. With a 7 x 40W RGBW light engine, the ERA 150 Wash delivers 3,900 lumens – an output that is just perfect for larger spaces that need longer throw distances.



Maxhub UC-M40 360° All-In-One Conference Camera

Ideal for use in small to medium-sized spaces, the Maxhub UC-M40 360° All-In-One Conference Camera offers a 360-degree coverage of the room with minimal distortion, so every collaboration feels more natural and naturally immersive. The UC-M40's 4-lens 360-degree super-wide camera ensures that every participants' face and voice is visible as well as audible, regardless of where in the room they are seated. The UC-M40 is also as stylish as it is functional, it's compact, portable size allows it to be carried around



anywhere, and its easy-to-setup interface makes it easy for the user to set it up without any hassle.

Meyer Sound PANTHER L Series

With an output of more than 150 dB in a compact cabinet, the PANTHER L Series is designed to offer unmatched linearity and headroom, an equally commendable power output in a more lightweight design than most line arrays in the industry – thanks to its ultralight Class D amplifier design, and an accurate dispersion control with three coverage patterns. Moreover, the PANTHER L Series feature Analog XLR and Milan AVB inputs, high-efficiency amplification package for up to 20% reduction in operating expenses, and a rainproof and dustproof IP 55 rated cabinet as well to ensure that the sonic experience is never compromised.



Mojave Audio MA – 37

Inspired by retro and aspiring to be futuristic, the Mojave Audio MA -37 is most reputed for its high headroom and its capacity to smoothen out the high ends. The MA-37 comes with an EF86 tube, a Lundahl transformer, and special Californian-built capsule, along with an adjustable tuned acoustic chamber, a cross functional mechanical approach that takes the best of both worlds from cardioid and omnidirectional polar patterns. MA-37's circuit is designed around a single-stage tube amplifier and comes with five hi-pass filter controls, located on the power supply, with three options – (M), 100Hz (V1), and 200Hz (V2).



Newtek CaptureCast

CaptureCast harnesses the power of NDI by connecting numerous camera apps, software screen capture, and a hoard of compatible devices such as PTZ cameras. It is ideal for use in the education sector, where teachers can connect with their students from anywhere in the world at the click of a button, without needing a



dedicated operator to set up or get the connection started. Not only does CaptureCast seamlessly capture any live recordings from devices such as cameras, tablets, microphones, and any other digital device offering an HD video output, but it also enriches every learning session with metadata such as tagging keywords.

N-Labs U1 4CH Microphone

This four-channel microphone delivers RF power of 50 MV. It comes with UHF technology and a working distance of 300 meters. Available in three different



variants - the 4 hand, 2 hand + 2 lapel, and 2 hand + 2 headsets - the U1 4CH microphone features a distinct license band for an interference-free sound, a real time display of battery, signal display, and frequency, a fully-lockable interface, and a fully-automated frequency scan function. This microphone is most ideal for houses of worship, large-scale gatherings, live sound applications, and installations.

Nureva HDL410 Audio Conferencing System

Promising next-level pro audio performance in large spaces, the HDL410 Audio Conferencing System from Nureva features advanced processing power, easy connectivity options, and Microphone Mist technology, which fills the space with 16,384 precision-targeted virtual microphones to deliver the clearest audio clarity. The HDL410 Audio Conferencing System also comes with Intelligent Sound



Targeting, position-based gain control, simultaneous processing, and continuous autocalibration. The HDL410's unified coverage map acts as the feather in the cap by processing separate physical microphones and speaker bars together for enhanced audio precision and clarity.

Nx Audio MT-1081

From the MT series, Nx Audio's MT-1081 is a professional grade amplifier that offers 99% reliability, coupled with a durable internal hardware to ensure it withstands the rigorous nature of transportation. Ideal for install applications in indoor public spaces such as discos, nightclubs, stadiums, theatres, and the like, the MT- 1081 consumes a total power of less than 0.1A when in use without load. The amplifier is equipped with capacitors WIMA/Rubycon for delivery of natural sound.



Panasonic PT-FRQ50 1-Chip DLP 4K Projector

The Panasonic PT-FRQ50 4K projector features 4k output resolution, 6,000 lm brightness, 2.0x zoom lens, preactivated upgrade kit, minimal input-to-output latency for sharp, detailed, colour-accurate images ideal for use in museum, educational, and corporate installations. With filterless heat-pipe-based cooling and hermetically sealed optical block ensures up to 20,000-hour maintenance-free projection.



Pangolin Laser Systems QuickShow Quick Hints

QuickShow Quick Hints is a software consisting of a series of educational videos for Pangolin Laser Systems BEYOND, a laser show software. QuickShow Quick Hints is designed as the easiest, quickest way for the users to acquaint themselves with a myriad of tools within BEYOND on a video-to-video basis. But what QuickShow Quick Hints does in a smart manner is allow the learners to learn without the need to skim hour-long videos, thanks to manually-added captions for each video in numerous languages and short watch times, which is a feature



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PreSonus Eris E5 BT

Dubbed as “our most powerful media reference monitors” by PreSonus, the Eris E5 BT come with 50 watts of Class D power for each of its speakers. The Eris E5 BT delivers massive volume, but without compromising on tonal or sonic clarity. The pair of speakers come with woven-glass composite woofers and silk-dome tweeters, which make them a reliable pro audio equipment for music experts and sound engineers globally. Equipped with Bluetooth 5.0 wireless technology and ¼” TRS balanced as well as unbalanced RCA inputs, this set of speakers works well for music professionals and music enthusiasts alike.



Prowise Touchscreen Ten G2

An interactive whiteboard, the Prowise Touchscreen Ten G2 features Android 11, 6/64 GB storage, Wifi 6, four pick-up recognition-enabled pen, an anti-bacterial glass plate, and a myriad of educational apps and tools. Due to the pick-up recognition, the action of picking up a pen automatically opens up annotation function, while the display bonding and the nano texture ensure accurate palm and object recognition. The Touchscreen Ten G2 also supports applications such as Microsoft Teams and Google Meet, Skype, and Zoom, so that seamless learning take place.



Qube Audio Mobi One Surface Controller

Designed to elevate the user’s audio production environment, the Mobi One delivers a flawless integration by creating a seamless workflow along with granular control with key features such as the Channel Strip, Instrument Controls, Channel Settings, and more. The Mobi One is also equipped with a sturdy, scratch-resistant, fingerprint resistant top plate constructed from anodized aluminum and a seasoned hard-wood frame to ensure a combination of durability and design at its finest.



RØDE RØDECaster Pro II Integrated Audio Production System

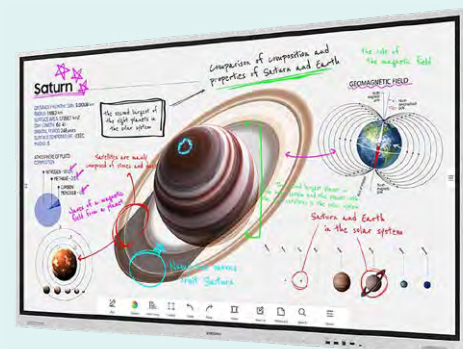
For content creators, such as musicians, streamers, and podcasters, the RØDECaster Pro II offers superlative sound quality, ease of use, and several customizable options. With ultra-low-noise, high-gain Revolution Preamps, four Neutrik combo inputs for microphones, line-level



devices, and instruments, nine individually assigned channels with three virtual faders, and six broadcast quality physical faders, eight fully programmable SMART pads combined with bank switching, high-performance quad-core engine and APHEX audio processing with on-board effects.

Samsung Flip Pro (WM75B) Interactive Whiteboard

The Samsung Flip Pro (WM75B) is an interactive whiteboard. But not just any interactive whiteboard. This piece of technology is all set to revolutionize the future of education. Delivering industry-best latency at only 26ms, equipped with prediction logic and 2048 pressure points applied directly onto the display to provide a seamless, realistic drawing experience, and allowing up to 20 people to use the whiteboard, thanks to the multi-touch display, the Samsung Flip Pro is a promising product in the AV industry. Not just that, the interactive whiteboard also comes with a pen and a brush mode to offer the user a realistic writing experience along with flexible options for erasure with the swipe of a finger or a palm. With a 3-in-1 USB C port and multiple connectivity options such as USB, HDMI, OPS, and DP slot, the user can connect the whiteboard to any device and display and access any content.



SGM Lighting i.6 RGBW LED Wash Light

The i.6 RGBW LED Wash Light from SGM Lighting is, in essence, a IP66 RGBW light source consisting of 24 LEDs. With DMX, RDM, and wireless control, an accurate 16bit dimming performance, a 2.3 degree native beam angle, and 2615 verified lumens, the i.6 is a promising product in the world of pro lighting. The i.6 also features integrated handles and omega brackets, which makes it easier for the integrators to carry it around, rig it, and focus it in a hassle-free manner.



Shure MXA920 Ceiling Array Microphone

The MXA920 Ceiling Array Microphone from Shure features Automatic Coverage technology which allows the user to benefit from the microphone without requiring any comprehensive setup. The array architecture is designed such that it delivers enhanced directional setup and better natural speech, and the advanced talker localization algorithm tracks the speaker’s position in real-time, making the MXA920 ideal for AV conferencing installations or live sound reinforcements.



SiliconCore High Resolution 1.2 mm LED Modular Floor

A standout product in the world of DvLED displays, the SiliconCore 1.2 mm Modular Floor LED display with LISA 2.0 technology can be used for fixed installations, without requiring a separate overlay. The smooth, water-resistant, non-reflective, durable surface of the LED display can be walked upon with ease. Not just that,



the LED Modular Floor Display can also bear weight up to 1000 kg per square foot. SiliconCore's proprietary CommonCathode technology ensures industry-low power consumption and operating temperature. The Modular Floor LED Display also features an Image Enhancing Technology that enhances the contrast and offers finer details even in the image's low brightness area with a High Dynamic Range that goes from 1200 nits to 0.04 nits, and delivering a 30,000:1 dynamic contrast ratio.

VuWall PAK

VuWall's PAK is a compact, multi-decode, networked node that works both as a standalone device or in conjunction with other nodes to build an infinitely scalable IP-based video wall. Featuring four HDp60 outputs or one output of 4Kp60 along with multi-format decoding up to 32 HD streams per every device, PAK is designed



for corporate workspaces, control rooms, situational awareness, and multiroom visualization.

Warm Audio WA-CX-12 Tube Condenser Microphone

The Warm Audio WA-CX-12 has a mostly flat tone that dips slightly at 2 kHz and gradually boosts at a frequency range of between 5-10 kHz. The WA-CX-12 has an edge-terminated style capsule made entirely from brass, which allows the condenser microphone to have nine polar patterns on top of six intermediate patterns. Equipped with a 12AY7 vacuum tube and a custom TAB-Funkenwerk (AMI) USA Output Transformer for added warmth and full, wide, open sound respectively.



Waves Audio CA3000-MX Commercial Audio Mixer

The CA3000-MX is an install-ready audio mixer and processing engine suited for single-room or multi-zone installations. Housed comfortably within a half-width 2U



rack-mount chassis, the CA3000-MX supports up to 32 stereo inputs, a 12x8 stereo matrix, and 24 stereo aux mix outputs plus L/R/C/M outs. The CA3000-MX is also compatible with all Waves plugins.



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AV Innovations Galore at ISE Barcelona 2023

*ISE Barcelona 2023, held from January 31 – February 3, 2023 in Barcelona, Spain, witnessed a record-breaking footfall over the four-day show. Clocking in at 58,107 unique attendees from 155 countries around the world, the ISE Barcelona 2023 not only gave the global AV industry a much-needed push in the right direction after the two-year long COVID-19 pandemic, it also bolstered Barcelona's tourism industry, as the city's bars, restaurants, and other entertainment venues registered record-breaking occupation. **PALM + AV-ICN** reports on the highlights of the show.*

ISE Barcelona 2023, held from January 31 – February 3, 2023 in Barcelona, Spain, was marked by the pompous presence of **King Felipe VI of Spain**, accompanied by **Ada Colau**, Mayor of Barcelona, **Núria Marín**, Mayor of L'Hospitalet de Llobregat, and **Laia Bonet**, 3rd Deputy Mayor of Barcelona, the ISE Barcelona 2023 sure had its finger on the right pulse this years.

Sharing his satisfaction over the success of ISE Barcelona 2023, **Mike Blackman**, Managing Director, Integrated Systems Events, shared, "It's been an extraordinary week and it's hugely gratifying for us to look back and realize we've delivered an exceptional show for our industry and the wonderful city of Barcelona. We've had unprecedented visitor levels to the show, so much inspiring content and features on display, and ground-breaking visits from the King of Spain on Tuesday and the President of Catalonia on Thursday to add both a royal and a political seal of approval to the show. This week at ISE 2023 confirms that we can safely say the global AV and systems integration industry is back with an impressive bang!"

Several exhibitors were also full of praise for the ISE Barcelona 2023. Among them was **Christine Schyvinck**, CEO, Shure, who said: "It's been a few incredible days at ISE! Lots of inspiring conversations with partners and old friends. We were



King Felipe VI of Spain graces the floor of ISE Barcelona 2023 with his royal entourage and key national ministers

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honoured to welcome His Majesty the King at our booth, and we won the Innovation Award for Audio Technology! We had a very successful week, and we look forward to continue all our conversations.”

Reputed Exhibitors Steal The Spotlight

K-Array, in their Live Demo booth, showcased their latest innovations, including the redesigned iconic Lizard micro-loudspeaker available in recessed-mounting models too, the updated sound management software, and low-frequency range



The K-Array booth at ISE 2023 attracts an impressive footfall

solutions introducing the shallow profile **Rumble-KU315** subwoofer and the **Thunder-KSC12P** infra-subwoofer for cinema/home entertainment applications. For **KSCAPE** they introduced the fully tunable version with a user-friendly lighting control system **Casambi** for a truly immersive plug n play installation, perfect for video conferencing rooms and offices.

On display were **Sony's** newly-launched **SRG-A40** and **SRG-A12** cameras with built-in AI. Ideal for installation in auditoriums, distance learning occurrences, conference rooms, and small and large meeting rooms, the AI technology enables the cameras to automatically track the speaker in the room in order to facilitate seamless, uninterrupted virtual meetings and enhance productivity levels in any organization.

To deliver state-of-the-art panoramic video conferencing layouts, on display was also **Sharp/NEC's 0.9mm DvLED**, in the aspect ratio of 21:9, solution-optimized for Microsoft Teams. **Panasonic's 21:9 LCD Projectors** were a crowd-puller as well - along with a host of other conference room solutions - which aim at delivering exceptional pixel clarity during any virtual meeting with the help of excellent resolutions.

On show was also the **PanaCast 50 Video Bar System** from **Jabra**, which is a native host to Microsoft Teams and Zoom Rooms, courtesy embedded Android. An integrated video bar consisting of speakers, video cameras, microphones, 10.1" high-resolution Touch Controller, and an Android UC Processing Power in order to help the user control the meeting room experience with minimal cabling and zero need for a dedicated PC. With 180-degree field-of-view panoramic 4K multi-camera array, eight voice detection-enabled professional-grade microphones, and an array of four speakers with a stereo setup of zero vibration, the PanaCast 50 Video Bar System promises and delivers true-to-life image clarity, an acoustic ambience sans residual echoes and static noise and a comprehensive panoramic view of the meeting room.

Logitech's soon-to-be-launched **Sight**, an AI-powered tabletop camera, also made its way to ISE Barcelona 2023. Sight functions as a companion camera to Logitech's couple of mini systems, in order to make larger, bigger meetings more equitable by extending the audio and video, giving them a greater depth in larger spaces and delivering a clear, front-facing tabletop view of the meetings.

On demonstration was also **Nureva's HDL410 Audio Conferencing System**, which consists of two microphone speaker bars and provide an extensive coverage of approximately 10.5 x 16.5 metres. Ideal to be used in meeting rooms, classrooms, and large venues, the HDL410 is also easy to install and manage.

LG Electronics showcased the application of its 30-inch transparent OLED display on a way-finding kiosk, which goes a step further than a typical kiosk by not just meting out a map of the location the user is trying to reach, but also physically turning to the direction displayed on the map to help the user take the correct path to the preferred destination. The crowd-puller, however, was **LG Magnit**, a premium Micro LED for businesses which comes with Full Black Coating technology, a superbly high contrast ratio, wireless broadband transmission technology,

and wide viewing angle and accurate colours..

PPDS announced a range of full-colour and full-size 'zero power' **Philips Tableaux ePaper Signage Displays** that is capable of delivering round-the-clock content without being plugged in or using an ounce of electricity. Available in 25" 16:9 and 28" 32:9 variants at the time of the launch and able to offer more than 60,000 colour options (which includes blue), the ePaper signage solutions by PPDS are ideal for retail, corporate, transportation, and public spaces – think of sectors aiming at digitalizing their operations – such as a store updating its opening hours, a restaurant trying to go carbon-free with a digital menu, and more.

INOGENI displayed the **CAM230**, a multi-camera system that is aimed at enhancing meeting equity. The CAM230 allows the presenter to change the camera angles just at the click of a button and deliver increased audio and video clarity to the listeners or the participants. Also exhibited was the **IMOGENI Share2**, the **IMOGENI Share2U**, and the **IMOGENI CAM300**.

Sennheiser launched the **TeamConnect Ceiling Medium (TCC M)**, a new ceiling microphone ideal for collaboration spaces such as meeting rooms or lecture halls. Featuring a coverage of up to 40 metres, an automatic dynamic beamforming technology and TruVoiceLift function, the TeamConnect Ceiling Medium can be easily surface-mounted, flush-mounted, or suspended.

AtlasIED announced several products at the ISE, namely the **Atmosphere AZMP4 (4-zone)** and **AZMP8 (8-zone)** and the **Atmosphere X-ZPS**. The AZMP4 and AZMP8 both combine audio processing and amplification in a single product to help users consolidate the devices in an audio rack and streamline system integration. The Atmosphere X-ZPS is an advanced multi-zone paging station accessory with a gooseneck microphone and a 4.3 inch touchscreen display for All Call, Group, and Zone paging.

Also exhibited was **Wyrestorm's** newly-announced **NetworkHD 500 Series** of Encoders integrated with **Dante**, which includes an in-wall solution with an additional HDMI or USB-C input, ideal for educational applications. On display was also **BrightSign's XC5**, a digital signage player for 8K applications, consisting of two variants – one with 2 outlets and one with 4 outlets – that allows the user to seamlessly play a video on a video wall.

Bose Professional displayed the **VB1 Videobar**, an all-in-one USB solution for mid-sized spaces that consists of 6-12 people, and the **VB-S Videobar**, a BYOD solution featuring a 4K resolution, a Bose speaker and a beam steering microphone from Bose in order to enable the listeners to hear audio with superlative clarity.

DTEN demonstrated the **D7X Dual Screen**, which stands above the class of earlier dual screens with a top-mounted camera. The D7X comes with a centrally-mounted camera for a more natural, better image placement and clarity, and fore-facing speakers with built-in microphones.

Shure showcased the **Stem Ecosystem Conference Room Audio System**, which is intended to be used for softwares such as Microsoft Teams. The Steam Ecosystem Conference Room Audio



Seen at the DTEN booth - The D7X Dual Screen with a top-mounted camera



Project managers Onur Cetinier, Yigit Erol, Cagdas Bulut, and Efdal Mutcu strike a pose in front of Vestel's booth

System includes the Stem Wall, a videobar, the Steam Ceiling, a ceiling microphone, which can be wall-mounted, surface-mounted or suspended, and the Stem Speaker, which can be used as a floor-standing speaker as well as a wall-mounted speaker – all of this comes with a Stem control unit, which controls the entire Stem Ecosystem.

Vestel showcased its **Wide Color Gamut Line**, available in varied sizes, from 43" to 65", with a color gamut specification of 90%. Also exhibited was the **IFX range** – in 65", 75", and 86" sizes. Powered by Vestel's System-On-Chip technology, 20-point IR Touch Technology, video freeze frame, built-in Android apps for office and multimedia applications, the IFX range delivers a seamless performance. Alongside, Vestel's **PF+ Series**, 16/7 usage UHD screens with 500 nits brightness was also put on show.

Peerless AV unveiled next-gen dvLED mounting alongside multiple mounting solutions demonstrations of **Kitted**, **Kitted +**, and **SEAMLESS Bespoke** in cart, floor-to-wall, and floor stand variants.

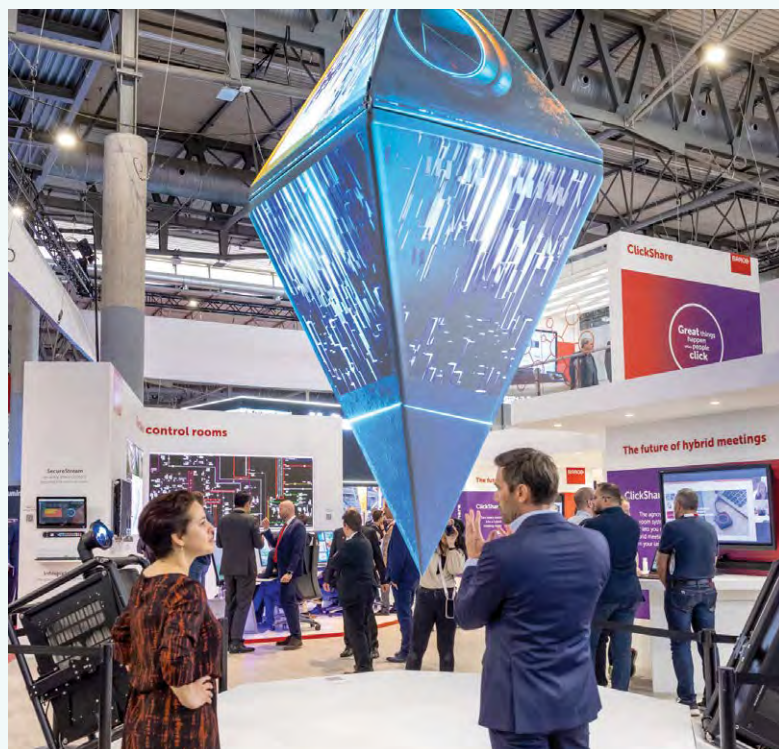
d&b audiotechnik introduced **HeadroomCalc**, which can predict d&b system's reaction to a specific audio channel to provide a more accurate sound pressure level and headroom calculation as compared to any other solution available in the market. Also making all the right noise at ISE 2023's Demo Room was the company's new offering, **Soundscape**, an immersive audio solution.

Panasonic Connect Europe, along with debuting two new Core mainframes and enhanced software in order to expand its **KAIROS live-production software**, unveiled the brand's newest **4K 1-chip DLP Projectors – PT-REQ12 Series (4K)** and **PT-REZ12 Series (WUX-GA)**, **4K Touch Displays – the EQ2-PCAP Series**, and **4K UHD LCD Displays – the SQ2H Series**. The 4K 1-chip DLP Projectors are designed to offer better production possibilities and simplify workflow, while the SQ2H Series comes in seven different sizes – 43" to 98" – to meet the increasing demand for premium professional displays that are unaffected by bright lighting conditions in spaces such as lobbies, entrance halls, and more. The EQ-2 PCAP Series addresses the growing need for instant, intuitive collaboration in meeting rooms, classrooms, and hybrid work environments with six screen sizes – 43" to 86" inches, multi-touch and Capacitive Touch Technology.

AV Stumpf showcased its **AnyShape Projection System** and **PIXERA** multi-user workflow features – while the former enables users to order custom-built projection

screens with a vast variety of frame shapes right from the factory, the latter allows media server operators to work on complex or large-scale installations more flexibly and efficiently by letting the user choose between several granularity levels in a multi-user scenario.

On show was also **Barco's ClickShare CX-250 Gen2 Wireless Conferencing System**, which features dual screen support and allows perfect meeting equity by



Apart from ClickShare CX-250 Gen2 Wireless Conferencing Systems, Barco steals the spotlight with visually-enticing projection mapping

keeping content and people onscreen at all times. Available in 21:9 screen ratio, the CX-250 also comes with the ability to switch between meeting room systems and ClickShare BYOM approach, turning any room into a ClickShare room in a wireless, flexible manner. The product is also carbon-neutral, making it one of the more sustainable options.

Smart Conferences For A Smarter Future

ISE Barcelona 2023 also hosted a myriad of conferences over the four-day show. Day One of the show witnessed the **Smart Building Conference**, and **Content Production & Distribution Summit**. The keynote of the first conference was delivered by **Palle Dinesen**, CEO and Co-Founder, Ubiquisense, **Elizabeth C. Nelson**,



invidis Consulting's Florian Rotberg (left), accompanied by **Stefan Schieker (right)** deliver the message of sustainability during the keynote speech titled, 'The Power of Pixels'

Co-Founder & Head of Research & Innovation, Smart Building Collective, **Erik Ubels**, Senior Consultant, MetisReal, and **Claire Penny**, Director of Global Partnerships, Invicara. The Summit was introduced by **Amelia Kallman**, Futurist and **Ciaran Doran**, Managing Director, Deep Blue Sapphire Limited.



It's a success: **Harmut Kulesa**, **Mike Blackman**, and **Jan Markus Jahn** are all smiles on **Panasonic's** virtual stage



Jan Hanten, Software Development, **AV Stumpf**, talks about **PIXERA** from the company's stand

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INDIA VS THE WORLD

Viraf Pocha



I've travelled a lot this year. To both old familiar towns and to places I'd never been. None of it has been project-driven. Had a chance to take it easy and chill with a fair number of people doing exactly what I do.

These guys who gravitated to desk jobs as they grew older, while I stayed in my thirties.

For the first time I could observe the functioning of our industry from a distance with NO pressure.

Obviously, everybody talks about their landmark shows. I was lucky to visit some. See some set ups at planning stages to load-ins to the main event. Avoided the load-outs. Only part of our job I hate, and have avoided. So, huge gratitude to all my load-out buddies who spared me the pain and allowed me to enjoy the inevitable calming of the senses after the high of performance.

Obviously, the large set ups were spectacular. The technology, the detail, the creativity, the scale, the comfort – amazing. Air-conditioned consoles in 35 degrees during Europe's heatwave. Complete with loaded fridges and cots to sleep in. The sheer size of back-end equipment that converted open fields into townships. Complete with backstage cafes and fairly large stores for necessities like tapes, bulbs, vanities etc. during the longer festivals. Trailer parks for millionaires who arrived in helicopters and Rolls Royces. Some light rain turning the paths in-between to slush, so a scramble for silicone covers (from aforesaid stores) to cover their Gucci Boots.

I'd never experienced a festival from this perspective. For old school guys like me who just don't get Electronic Music with their bobbing heads behind laptops – I found wandering around backstage to be far more interesting.

But enough said about megoliths. These are the shows listed on Instagram and glossy production magazines. You can browse them at leisure.

I'd like to talk about the medium and small shows I visited and compare them with medium and small shows in India.

What's medium? – a 30ft x 40 ft. stage. Roughly between 1,000 – 3,000 people.

What's small? – Smaller to some-

times no stage. Less than 1,000 people.

The first most glaring difference is people. Or lack of people in most cases. In the larger festivals, there is so much going on that it's difficult to track what any one individual is doing. Here you can spot and appreciate the many hats each guy wears during the set up for an event.

Load in times are really tight. Totally centered around the 8-hour shift. Wages go from around \$11 an hour to \$100 an hour for the techies.

Here's a typical day:

9 AM: Load in. World over the venue is NEVER open. Load-in manager is on the phone with the venue manager who assures him man with the keys is minutes away. Surly dude shows up with keys and promptly disappears leaving the load-in team to figure out everything. So usually, the local company sends someone who knows where the loo keys are, how to turn on coffee machine – you know the important

every venue, including hotels, conference spaces, theaters and auditoriums ALL have hanging points. Around England, I visited some venues that were swimming pools – complete with sloping floors. Counties find them expensive to maintain (Heating). Their natural slopes are exactly what performance venues need. Charts are unrolled and often equipment goes straight from flight case to being clamped onto trusses. (NOTE: Few to no iPads here). 50% of the lights are still ground supported on stands and foots. LED Screens are usually standard-sized.

4 PM: Show runners arrive. Sometimes, they are already there as part of rigging team. Consoles are opened and mains are switched on (if metered). Within minutes, everything is fired up and just works. Rarely will you find a dodgy cable. Rarely will you find a wig-gly light no wiggling. Rarely will you

I found load-outs to be quick energetic affairs. No sign of tiredness or sloppiness, whatever the hour. In fact, I was struck how better organized it was as it all happened so quickly. Everything returned to the same flight case, and then rolled aside until its turn came to be loaded onto the exact same spot in the truck. Including wardrobes. ALL flight cased.

stuff. Sometimes they send two guys. But I have never seen more than five. They unload everything. Sometimes haphazard dumping of flight cases in and around stages.

Often a detailed plan where each flight case is marked and there is a map of exactly where it has to be unloaded. Sometimes even the truss is in flight cases.

Surly dude reappears. Looking neat and groomed. He's showered in the dressing rooms, cleaned bathrooms, had his coffee and ready to start his day. That's when he signs the entire load-in inventory. Goes back to the venue cleanup. (Toilet paper in bathrooms, vacuuming front of house, et al.)

11 AM: Riggers arrive. Today almost

find an LED Par with any LEDs missing. Sound system checks are remarkably SHORT and very quiet. Systems are calibrated on computers so a very quiet pinking sound. Lights are trimmed if truss heights are an issue. What strikes me is that even in small venues, the lighting and sound are distributed around the venue. Not just centered around the stage.

Lots of smoke machines, pyros, and confetti are also present.

Band arrives at some point and I was amazed how quick sound checks were. Even bands with multiple guitars and keyboards. None of that metronomic beating of the snare.

The other thing that struck me was the clean living. No sign of any sub-

stances or alcohol inside the venue. Maybe a quick coffee or smoke break. Good job.

A lot of venues have washing machines – so every day, a couple of guys, especially guys on tour, do laundry. Catering arrives around 6 PM. Pizza or lasagna reign as favorites.

Boom – You are ready to go on at 8 PM.

Show is done – As I said earlier – Load-outs are a pain. Which is why this part struck me the most. I found load-outs to be quick energetic affairs. No sign of tiredness or sloppiness, whatever the hour. In fact, I was struck how better organized it was as it all happened so quickly. Everything returned to the same flight case, and then rolled aside until its turn came to be loaded onto the exact same spot in the truck. Including wardrobes. ALL flight cased. Like I said earlier – washing machines are onsite, but every company always had its own electric kettle and an iron board.

The quiet concentration and efficiency impressed me. Most crew were young college dropouts or older construction workers who found this lighter work. Rarely, the backstage crew numbered more than five (Not including loaders, if union required).

In general, I found the events technically proficient, tightly cued and run efficiently. We have so much to learn from the organization. We do not treat our equipment very well. So we have to spend so much time doing jugaad on site.

The question – Do we look after our people?

World over, crews are small – each person's job is vital and so both work and workmen are respected.

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SYNERGY TECHNOLOGIES DELIVERS FLAWLESS VISUAL EXPERIENCES AT MLF & DALY COLLEGE

As a leading equipment rental and creative solutions service provider; **Synergy Technologies** has built a formidable reputation of offering world-class, high-performance visual technology services for live events of all scales and applications. It is this very distinction that has won the Mumbai-based company the honour of commissioning several grandiose and visually awe-inspiring projects that have taken place over the course of the past few years.

"As a comprehensive visual solutions company, our team has always been ready to push the envelope when it comes to in bringing new and exciting concepts to life," says **Chirag Patel** – founder and director of Synergy Technologies, as he noted that most of the projects commissioned by his company emphasize the creative use of technology and art to bring together an experience that leaves an indelible mark on the audience.

Chirag's observations stand to be true when reviewing two of the most recent novel live performance endeavours that the company was engaged for.

The Mumbai Light Festival

Arguably the most ambitious satellite event from the MLF, Synergy Technologies commissioned a stellar visual technology solution for the event; with the ultimate intent of doing thorough justice to the quality and scale of the mes-

merizing art content being presented by the stellar artists.

An intellectual property of the Floating Canvas Company, and supported by the Ministry of Culture (Govt. Of India); the **Mumbai Light Festival (MLF)** has been envisioned as a one-of-its-kind celebration of lights that becomes a fixture in Mumbai's cultural calendar. A platform for artists from India and abroad who are doing path-breaking work with light as a medium, MLF's goal is to establish itself as a public arts festival that is global in ambition, scale and execution. The project kickstarted with the '**MLF Satellite**', which are teaser events that are meant to provide a glimpse of that magical space that lies at the intersection of art and technology – a sort of intimate prelude to build excitement for the much grander full-fledged MLF which is scheduled for March, 2023.

In December of 2022, the Mumbai Light Festival commissioned its third Satellite edition, which took place from the 13th to the 22nd of the month at Mumbai's renowned G5A Warehouse. Titled **IMMERSE**, the event showcased two audiovisual acts that brought together diverse artists, genres and influences; crafting uniquely immersive experiences for the audience. The first audiovisual act titled '**Once upon a time...**' depicted the reimagining of a Gond folktale through the art of Padma Shri-awardee **Durgabai Vyam**, one of the leading names in the Pardhan Gond tradition of tribal art. Brought to life by ace animator **Vishwesh Menon** and set to the hypnotic tunes of Bana,

a three-string fiddle played by **Pardhan Gonds**, the act attempted to push the boundaries of representing India's vast wealth of traditional lore and art forms.

On the other hand, the second act, titled '**Overture**', was a collaborative effort between visual artist **Aniruddh Mehta** (BigFat) and music tech expert **Aaron Pereira** (Myles). An abstract and compelling experience combining plush gradients, complex geometries, polyrhythmic sounds and ambient textures, this act was designed and put-together to be an unforgettable sonic and visual extravaganza. Arguably the most ambitious satellite event from the MLF, the organizers decided to partner with Synergy Technologies to commission all of the visual technology solutions for the event; with the ultimate intent of doing thorough justice to the quality and scale of the content being presented by the respective artists. The Synergy Technologies team, led by Chirag Patel, wasted no time in

This would be the first time ever that heritage Gond artwork would be presented through the use of digital technologies; and therefore, attention to detail reigned as a priority. We knew from the onset that we had to be extra careful with the colours, brightness, contrast and viewing distance to ensure that the artwork presented by the fantastic artists create the desired visual impact. And for this, we had several discussions and meetings to mutually decide on what to choose for showcasing the art." comments Chirag.

Delving into the details of how they approached the planning and commissioning of the event; Chirag reveals that the key to bringing the artists' and organizers' vision to life was to deploy a set of technologies and systems that would optimize the room dimensions in a way that audiences would be engulfed in



Multiple units of Novastar MX40 Pro, 4k HDMI matrix routers from Lightware, and Dataton's Watchout software delivered a comprehensive image processing for the Mumbai Light Festival

putting together a plan of action to bring the organizers' and artists' vision to life.

"This project gave us an opportunity to work very closely with renowned personalities like **Durga Bai**, **Vishwesh Menon**, **Aniruddh Mehta** and **Aaron Pereira** – and the rest of the artists and management crew – all of whom share a common zeal of exploring new boundaries of art. Through our multiple discussions with the organizers, we absorbed their vision for the Mumbai Light Festival, and their objective to deliver a truly unique visual spectacle.

a truly immersive environment as soon as they set foot within the space where the art was being presented.

"With the G5A warehouse space being specifically designed to host art exhibitions and installations; we realized that the intimate space would eventually offer a very short viewing distance for the audience; especially considering that the artworks sported a very high pixel resolution of 12672 (W) x 1920 (H). Also, due to height restrictions at the venue, we realized that com-



2.6mm LED screens from ATENTI and multiple Christie 20k laser projectors were installed at the G5A warehouse for the Mumbai Light Festival to enthrall visitors with avant-garde technology

prehensive immersive projection would lead to multiple shadows being cast on the artwork itself, thereby compromising the viewing experience for the audience. We presented the findings of our analysis to the organizers and offered to conduct a simulation at our warehouse. After a bit of back and forth, we collaboratively decided to deploy our newly acquired 2.6mm LED screens from **ATENTI** that would act as the main canvas for the artwork; in conjunction with multiple 20k laser projectors from **Christie** that would map the floor."

Considering the rather limited period of time allotted for setup and system check, team Synergy Tech swiftly deployed over 1200sq. ft consisting of the 2.6mm LED screens perfectly aligned and arranged to offer seamless pan-

flawless and rather hypnotic viewing experience of the mesmerizing artwork on display throughout the 10 scheduled days of the event. **Aagam Mehta**, co-founder of the Floating Canvas Company, elatedly shares his feedback about working with team Synergy Tech as he comments, "For us, working with Synergy Technologies was key to pulling off this immersive art experience successfully. Not only was Chirag involved in the project from the very beginning, but his crucial inputs and advice regarding the kind of hardware to go with, ensured that our vision for the event came to life in the best way possible!"

152nd Annual Ceremony At Daly College Indore

A special conceptual live theatrical performance on the life of Buddha witnessed the iconic **Daly College**

truly memorable, the institute's management spared no stone unturned in putting together a spectacle that would remain etched in the minds and hearts of all who gathered to witness the annual prize distribution ceremony and cultural programme.

With the imminent **Jyotiraditya Scindia**, Union Minister of Civil Aviation, gracing the 152nd annual prize distribution function of Daly College, as chief guest, the grand event witnessed students bring awarded medals and trophies for their achievement in academics and co-curricular activities throughout the year. At the same time, the cultural program saw students presenting various dance styles including folk and western – all of which was appreciated whole-heartedly by the guests and attendees.

The various performances did invigorate a sense of great festivity, no doubt. However, the one singular aspect of the event that truly captivated the audiences and guests with its majestic exuberance and never-before-witnessed creative acumen was a special conceptual performance that witnessed the Daly College structure being engulfed in stunning visuals and moving art content – all of which was curated and commissioned by Synergy Technologies.

Team Synergy Technologies, led by Chirag, pulled out all the stops in ensuring that the audiences were treated to a visual extravaganza like no other, as Chirag and his team invested several hours in working closely with the chief conceptualizer and choreographer of the cultural event – **Sumeet Nagdev** – in understanding the overall vision for the content to be mapped out.

The special performance – a live theatrical on the life of Buddha – was scheduled to be the event show-stopper, wherein a team of live musicians (students) were chalked out to perform on the terrace section of the first-floor of the building structure, while the story content would be narrated live by a student located a level above the terrace. The entire performance had to be synced in perfection to the visual content mapped onto the building – which together was expected to be a harmonious and consistent high-quality viewing experience for the audience. In addition to putting together all of the technological systems to bring this vision to life, team Synergy Tech were also entrusted with the responsibility of creating all of the 3D projection mapping content in ultra-high-definition resolution to offer the best possible

'big-picture' viewing experience.

As expectations from team Synergy Tech rode high, they adopted a meticulous approach. Chirag informs, "We started off by first commissioning a thorough analysis of the Daly College building structure – spending several hours precisely measuring every single architectural nuance of the building façade. Once this data was secured, the team ran several virtual simulations to understand the precise system configuration and projector deployment points that would ensure the entire building façade being covered seamlessly to offer a stable and continuous viewing experience. Finally, we reviewed every minute detail of the script and music cues of the performance and stitched together the impeccable visual content that would resonate perfectly with the performance".

For the event itself, team Synergy Technologies deployed a total of 8 units of the D20WU-HS high-performance projectors from Christie; double-stack mounted (4 on 4) at specific points relative to the structure to comprehensively cover the entire façade, without any image overlaps or drop spots. A total of 8 units of the **HDMI20-OPTJ-TX/RX90** optical extenders from Lightware were deployed in conjunction with the projectors to ensure relay of uncompressed ultra-high-quality content; with end-to-end management of the projected content achieved through Dataton's Watchout.

Needless to say, the performance turned out to be a grand success, with the guests and the audience expressing their sincerest appreciation through rousing applause and thunderous ovation. Sumeet Nagdev shares due credit of the success with Synergy Technologies as he comments, "We shared a deep level of trust in Chirag and his team since day one. We chose Synergy Technologies as our partner, mainly because of their level of passion and commitment when it comes to the quality of the projects they commission, and of course, their stellar work ethic. Team Synergy Technologies were absolutely brilliant to work with; and together we ensured that we pulled off a truly flawless visual spectacle that was enjoyed and appreciated by one and all."



Eight units of the HDMI20-OPTJ-TX/RX90 optical extenders from Lightware were deployed at Daly College, while projected content management was achieved with Dataton's Watchout

oramic viewing; with multiple units of the powerful and virtuous **No-vastar MX40 Pro** deployed to offer comprehensive image processing, image adjustment and overall display control. Additionally, multiple units of 20k laser projectors from Christie were deployed to encapsulate the floor space in visually stunning artwork that offered a truly immersive experience; with matrix switching achieved through multiple units of **4k HDMI matrix routers from Lightware**, and **Dataton's Watchout** providing unparalleled creative control over the projection material.

Team Synergy Tech's quick and precision driven system setup and control not only allowed the artists enough time and dexterity to render their respective content accurately, but also ensured a

building structure being engulfed in stunning 3D Projection Mapping – all of which was curated and commissioned by Synergy Technologies.

Indore's iconic Daly College is a centenarian co-educational residential and day boarding institution with a glorious history of promoting excellence in academics and co-curricular virtues. Established during the 'British Raj'; the sprawling campus is a striking sight given its stately architecture; and the institute building itself is considered an architectural marvel that has managed to stand the test of time.

Every year in the month of December, the institute commissions a grand week-long celebration in honour of its founding, which is followed by the annual prize distribution ceremony and a cultural programme. 2022 marked 152 glorious years of the institute's continuation; and to make the celebrations

FIFA WORLD CUP QATAR 2022 TURNS LARGER THAN LIFE WITH NOVASTAR

The **FIFA World Cup 2022**, held in Qatar, enthralled football fans in the stadium and at home alike with **NovaStar H Series’ LED screens**. For the 2022 World Cup, the LED screens from the NovaStar H Series were installed in a total of eight stadiums. The streak continues as the FIFA World Cup relies on an audiovisual extravaganza from NovaStar for the third time in a row.

Not just on the pitch at the stadium, the NovaStar H Series LED Screens were also installed at several public venues around the world – such as the Casablanca in Morocco, Dubai Airport, a Dubai-based hotel, a Lebanon-based casino, a Colombia-based food court, to offer the viewers an exceptional viewing experience.

Apart from that, NovaStar’s H Series LED Screen has also enhanced the visual experience at the Tokyo Dome in Japan. The Tokyo Dome is a famous landmark in Tokyo used for a wide variety of purposes, not just for baseball games, but also other sports, concerts and events. It is not only the home ground of the professional baseball team Yomiuri Giants, but also a premier venue in Japan which more than 8 million people visit annually. The NovaStar H Series LED Screen in Tokyo Dome is

the largest stadium screen in Japan, with a total area of more than 1000 square meters. It is perfectly lit with two fully equipped H5 controllers and six CVT10-S fibre converters from NovaStar.

The NovaStar H Series LED Screen offers a multitude of benefits, such as:

- 1. *All-In-One Splicer and Controller*
H Series provides powerful signal processing capabilities. It’s the first all-in-one splicer and controller in the industry, which greatly simplifies system integration. H Series features true 4K video processing. With the leading image processing technology in the industry, it can give you an astonishing visual effect, truly making it the perfect solution for fine-pitch LED applications.



The stadium at FIFA World Cup Qatar 2022 comes alive with NovaStar H Series LED Screen

- 2. *Muti-Input/Output Cards*
Max 15 input cards + Max 5/10 (Enhanced) output cards, suitable for large scene screen such as the stadium. It also supports 12 GB SDI to meet input requirements.
- 3. *Super Stability*
Hot plugs for inputs and outputs and smart data recovery functions provide safety, stability, and convenient operation. An industrial-grade redundant power module ensures stable operation for the course of your entire application.
- 4. *High Image Quality*
H Series built-in high-definition image processing engine, support for HDR, wide color gamut transmission, high contrast and abundant colors, they provide more details in

both light and shadow. NovaStar’s HQ high-quality scaling technology, which includes an adaptive content scaling engine. This technology prevents loss of details and border errors when zooming out, as well as jagged edges and blurring when zooming in, allowing for a perfect recovery of the original image.

- 5. *Flexibility Layers*
H series supports numerous layers with an unrestricted arrangement. Each output daughterboard provides 16 layers. The layers can freely cross different output loading areas while keeping layer size the same. Layers can be in any position, overlapped, or unlimited scaled. It supports functions such as image capture, layer configuration, layer rotation and more.



The Tokyo Dome in Japan features the NovaStar H Series LED Screen, the largest of its kind in the entire country

The Bright Spark

(Continued from page 42)

Each team has the ‘doer’ guy. The one guy who just quietly gets things done. In India, we are over-staffed and under-trained. Let’s not go into reasons here. I just hope that as more and more technology creeps in, our teams will be better trained so everybody’s life becomes better.

Smaller shows. Honestly, for a lot of the reasons mentioned above – smaller shows seem to run smoother and are more detailed in India. The single reason again is manpower. Smaller shows around the world are very restricted due to manpower.

However small a show in India – there is a team dedicated to do that show and nothing else.

Overseas, there is usually just one guy managing – sound, lights and video. Often, that gentleman also carries other duties like housekeeping. He is swamped and can barely cope.

Technical packages are tight and rigid. It’s tough getting a spare mike or a decent rehearsal. If it’s a performing

company, a performer usually doubles as a techie.

Lead times are long.
In India – even the smallest Ganpati mandap, a small business venue or a local theater will be manned by a dedicated techie. Rarely so overseas. Hey – I’m generalizing, so don’t call me out on the specifics.

I’m seeing it as a good thing. It creates employment. Gives the young guys something useful to learn and keeps them off the streets. This access to manpower also allows our teams to be mobilized and ready in hours.

It’s up to us to nurture the more enthusiastic ones to specialize – especially if they not distracted with other duties. I hope they find both mentors and opportunities to go onto greater things.

Let me end with a big shoutout to Lolapalooza. Foreign design. Indian equipment. Indian technicians. Everything came together smoothly and we rocked.

Hope opportunities like this brings us all up to bigger things.

AV INNOVATIONS GALORE AT ISE...

(Continued from page 41)

Day Two of the show saw various conferences and summit, namely: the **Digital Signage Summit**, **Control Rooms Summit**, and **Education Technology Summit**. The keynote for the **Digital Signage Summit** – co-produced by invidis Consulting and Integrated Systems Events - was delivered by **Florian Rotberg**, Managing Director, **invidis Consulting** and **Stefan Schieker**, Partner, **invidis Consulting**. The Control Rooms Summit was introduced to the attendees by **Chris Dreyfus-Gibson**, Vice Chairman, International Critical Control Room Alliance. The Education Technology Summit was chaired over by **Dr. Gill Ferrel**, the Content Chair, ISE’s Education-Themed Conferences, and the speakers for the summit consisted of **Paul Bailey**, Head of Codesign, Jisc, **Jo-Ann Kamp**, Lecturer,

Researcher, and Coordinator, Fontys University, and **Ziwei (Jo) Huang**, Edtech Product Manager, FeedBackFruits.

Day Three kickstarted with the **Smart Workplace Summit**, where Amelia Kallman returned to the podium to welcome the attendees. The Live Events Summit followed, where **Stew Hume**, Editor, Total Production International, addressed the audience with a detailed speech.

The four-day conference and summit programme also had English and Spanish-centric conferences and summits running parallelly, namely **Tech Talks English** and **Tech Talks Español**, presided over by several different speakers throughout the day.

The **ISE Barcelona 2024** is set to return from **30 January to 02 February, 2024** at Fira Barcelona, Gran Via Venue, Spain.

LOCATION SOUND RECORDING

HOW I PREPARE FOR MY SHOOT

by **Cheerag Cama**, *Freelance Audio Engineer*

Whenver I am about to start working on a new film project, there are a few things that I always do.

The first is of course to read the script. This gives me an idea of what the movie is all about. And as I read through the script, my mind starts working on how I plan to approach the shoot. If possible, go on a recce and visit the locations where the Director is planning to shoot.

Having read the script, I know roughly how many wireless lapel mics I will need and I always try to keep some extra wireless lapels since you don't know when you may need to mic up extra people. Generally, six wireless lapels mics and two shotgun mics form the basic kit.

I prefer to have my wireless system from one brand and not mix and match different brands. So for example, if I'm going Lectrosonics, then I want all my bodypack wireless TX to be Lectrosonics. If I'm going to use Audio Limited, then I prefer to have all my TX from Audio Limited. I also prefer having the same lapel mics. For example, if it's Cos11, then I want all my TX to have Cos11's. If it's DPA, then I want all my TX to have DPA mics. Preferably the same model. This gives me the same tone even if I mix my TX on a talent from one day to another. So having the same brand of wireless as well as having extra TX and RX on a shoot is certainly beneficial, but sometimes, it's just not possible due to budget. I also always carry some extra lapel

microphones, like extra Cos11's and a couple of Countryman B6's. Having your extra mics in different colours (like beige or white) can sometimes be a great help.

As far as wireless lapels go, it's also very important to have the right accessories. Small windjammers, mounting clips, concealers, Rycote tapes, stickies, undercovers, overcovers, foamies, Hide-a-mic mount, belts for ankle, thigh, waist, chest etc...all of these are as important as having a good TX and RX system. Mounting a lapel correctly on a talent is an art by itself, and something that one can perfect as the years go by. Sometimes, a different placement by 2 mm is all it takes to get good sound from a badly placed mic.

For my boom mics, I nowadays use two booms consistently on my shoots. So I prefer having two proper boommen and use both of them simultaneously, all the time. I also prefer having the same two boom mics, so I'm always using two MKH 50's or two Neumann KMR 81's or KMR 82's. Having two booms gives you far better coverage on any shot. Two PlugOn TX's are also very much needed on shoots nowadays.

I also like having some mics to rig up, like for example, car scenes, etc. For such instances, I like having a couple of Sanken cub mics with me.

An MS stereo mic can also be very handy, especially when shooting with crowds, or shooting in a crowded market place, a cafe, or shooting with trains or traffic in the background, etc.

Frequency coordination on set is very important. Lectrosonics and Audio Limited receivers do have the facility

to do a RF sweep and tell you what frequencies are free of interference. But by using relatively inexpensive hardware and software, one can come up with a far better frequency coordination plan to use on set.

The Sound Devices 664 with a CL6 fader pack is my recorder of choice. It's bulky compared to a Sound Devices Scorpio, but I like having twelve full size faders. And 12 tracks are sufficient for 99% of the work I do. It is suitable for cart as well as bag work.

But even the best of recorders can sometimes crash on you. As a backup, I also always carry a backup recorder like the MixPre 10T. So if you have your main recorder failing on set, you can quickly switch over to your backup recorder.

I also find out who the DOP is, what cameras they are planning to use and how many cameras will be rolling simultaneously. In most cases, we have two cameras on set and depending on the working style of the Director and the DOP, the shoot could end up being a traditional single camera shoot, or a two camera setup for most shots. So if there are going to be two cameras on set, I will need to have three TC boxes, (one for my recorder and one on each camera). Depending on what cameras are being used, one needs to have the right kind of TC cable and audio cable. The TC cable is to feed TimeCode from the generator to the camera and depending on the camera, it could be a BNC connector, or a 5 pin Lemo connector, or a 4 pin Lemo connector. And depending on the cameras, the audio IN connector could be two 3-pin XLR connectors, or a 5 pin XLR, or even a six pin Lemo connector. Knowing what type of TC input connector and audio input connectors are on the cameras can help you to be prepared when the shoot begins.

I also have a list of expendables and helpful items, like double sided tape, floor mats, yoga mats, 3M micropore tape, gaffer tape, paper tape, WD40, DustOff, extra CF and SD cards, card reader etc... which I keep handy on set.

My current gripe is that I don't get the video wirelessly to my cart and I'm hoping to rectify this by asking for a



Cheerag's go-to equipment

Bodypack and Receivers

- Lectrosonics
- Audio Ltd.

Lapels

- Sanken Cos-11
- DPA
- Countryman B6

Boom Mics

- Sennheiser MKH 50
- NEUMANN KMR 81 / 82

Other Mics

- Sanken CUB mics

Recorders

- Sound Devices 664
- CL6 Fader Pack
- Sound MixPre 10T
- Tentacle Sync TRACK E
- Zoom F3
- Zoom H2n

wireless video feed from the camera dept on my next shoot.

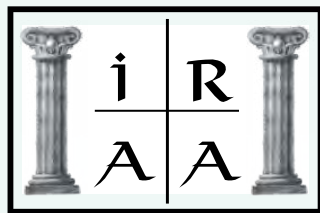
My second gripe is that I can't get my MS stereo mic signal to my recorder wirelessly. I often use an MS stereo mic on the set if I feel that I can get something usable from it. But getting the signal wirelessly to my recorder is proving to be a challenge.

I would also love to have two Tentacle Track E recorders and a Zoom F3 recorder as my 'GET OUT OF JAIL' card. These units could be very handy in certain cases.

I sometimes record a safety two track on a MixPre or a Zoom H2n. Why? Because I've had days when the main recorder did not roll, or the card got corrupted. Having a two track backup recording of your LR mix on a completely different recorder can save you from complete disaster.

(Continued on page 47)

Cheerag Cama is a seasoned freelance audio engineer, who set his foot in the world of pro audio in 1986, and till date, he has performed audio engineering for several recording studios, television multi-camera shoots, feature films, ad films, corporate films, documentaries, and more. Cheerag has also worked as production sound mixer for major Bollywood films such as *Kaabil*, *Chehre*, *Pushpa: The Rise*, *Genius*, and many more. Apart from that, Cama has served as the Head of Audio Department on numerous shows, such as *Koffee With Karan*, *Comedy Nights With Kapil*, *The Kapil Sharma Show*, and *Satyamev Jayate*. In his guest column, Cheerag shares his insight on how he, as an audio engineer, prepares for a hassle-free shoot day.



IRAA JURY'S SONG OF THE YEAR NOMINATIONS 2021

The 16th edition of **IRAA (Indian Recording Arts Academy) Awards**, galvanized the entire song recording and music production industry in India, receiving about 1400 nominations from across the country across 80+ categories. The nominations represented the most talented pool of the sound engineering and music production community from across India.

The explosion of Indie talent in the country and the high level of music production at home, wherein home and project studios has become a part of the recording scene in India, resulted in the surge in nominations. Nominations received from the Indie segment just goes to prove that this segment has as much respect and aspiration for the IRAA awards, as do the established, sound engineers and music producers who have been recording the soundtracks of major movies. This gives IRAA a lot of dynamism and scope in the future, and we hope and expect that in the future the nominations will cross many thousands.

This year, the freshly appointed Jury for IRAA decided that IRAA 2022 should have a Song of the Year Award. The 16th IRAA will have India's first professional assessment of the BEST SONG 2021. With this selection, and with the creative composition, Indian music will have a first definitive stamp of the best or top popular song of the year evaluating both the recording art, as well as the creative composition, lyrics, and the songwriter's artistry. This selection and winner will define Indian music trend.

In its first year, the nominations for this category will be the prerogative of the Jury only. The Jury decided that IRAA being India's most credible sound recording and production award with a proven assessment process, they should nominate the Song of the Year. Each Jury will nominate five songs and the winner will be selected by a professional collective assessment from these nominations.

IRAA Song of the Year will be the most definitive song of the year. It will be the ultimate selection for all criteria. The Song of the Year will be announced during the streaming of the IRAA awards, date of which will be announced soon.

Media Support for IRAA 2022 is provided by **Sudeep Audio**.

HARMAN Professional Solutions and IRAA

For the third consecutive year, the IRAA 2022 has received wonderful support from one of the world's largest professional audio, video, lighting

and control products and technologies company in the world - **HARMAN Professional Solutions**, boasting of an extensive catalog of signature products for the studio, from legendary brands like **JBL, AKG** and **Soundcraft**. HARMAN

Professional Solutions, India has committed its support to the prestigious IRAA platform. HARMAN association and joining the vision is recognition of IRAA as a neutral and independent forum and certifies HARMAN philosophy to recognize talent. Recording arts is at the pinnacle of professional audio and sound technology and indeed HARMAN is at the frontier edge in these technologies.

Supported by:



IRAA JURY'S Song of the Year Selections

- | | |
|--------------------------|---------------------------|
| - Alare | - Mann Bharya |
| - Baarishon Mein | - Para Brahman |
| - This Will Be My Year | - Param Sundari |
| - Bohurupe | - Quest |
| - Chaka Chak | - Raataan Lambiyan |
| - Dear Madeline | - Soch Liya |
| - Enjoy Enjaami | - Srivalli |
| - Fearless feat. Ikka | - Rang - Raag Baageshwari |
| - Ghar Aao Na | - Inside Out |
| - Idhuvum Kadandhu Pogum | - Titar Bitar |
| - IIsheguri Prem | - Uyire |
| - Jugnu | - Run |
| - Lut Gaye | - Yaamili Yaamiliyaa |
| - Mali Absolute | - Yaaraikum Ivlo Azhaga |

Location Sound Recording

How I Prepare... *(Continued from page 46)*

In short, to sum up what I'm saying:

- Read script
- Recce the locations if possible
- Plan equipment needed for the shoot
- Prep everything before shoot starts

- Get in extra early on the first day of shoot
 - Have redundant systems in place, because something or the other can always fail.
- In my opinion, one of the most important things on a film shoot is not having the most up to date or the latest

model of a location recorder, but rather having the right microphones and the correct accessories for them.

One should be completely prepared on the first day of the shoot. There should be enough IFB headsets ready for the director and the script supervisor and the correct TC and audio in

cables for the cameras. All mics and cables should be tested thoroughly, so that you are in the right frame of mind to begin work on a new project.

A trouble free first day of shoot goes a long way in starting off on the right foot!

DON BOSCO SCHOOL IN ITANAGAR CHOOSES BRITISH ACOUSTICS AS THEIR SOUND PARTNER

Don Bosco School, located at Itanagar, Arunachal Pradesh, is a Catholic institution affiliated with the Central Board of Secondary Education (CBSE). The aim of the institution is to impart holistic education (religious, moral, psychological, social, intellectual, and physical). Ample opportunities are provided to the students through various activities like house systems, competitions, games and sports, exposure to programs outside the school, computer education, leadership training, motivational talks, scouts and guides, and experience of teamwork. Special attention is given to ensure profound morality, discipline, and character formation in the school.

To enhance the acoustics within the walls of the school, the directors wanted a sound system, but one with the minimum amount of visual distraction that would not interfere with the interior of the hall. After understanding the necessities of the clients and the venue, the installation engineers suggested **British Acoustics** products as the ideal fit for the install project.

Dharam Kohli, Pre-Design & Sales Engineer, **VMT Enterprise**, commented, "The British Acoustics Speakers were placed after



British Acoustics' Delta 930 LA, 928 S, & PW 615 formed the focal products of the audio system installed at the school

thoroughly studying the venue. This enhances the performance of the system."

Delta 930 LA, Delta 928 S, and PW 615 were the focal products of the system. The Delta 930 LA has been engineered to deliver the best audio fidelity, exceeding the demands set by the rising industry standards. The Delta 928 S Dual 18" is a high-performance subwoofer with custom British Acoustics transducers. It comes with a preset library and the subwoofer's low-resonance builds structure. The PW615 is a passive loudspeaker featuring rugged build quality, efficiency, unmatched stability, and great acoustic performance. The series is built for implausible affordability and ultimate versatility with applications ranging from live shows to residential installations.

The audio installation also included the British Acoustics 2XL and TK 5000,

which are high-performance amplifier systems for install applications features, industry leading PSL preamps for better distortion control & strong signal amplification, and gorilla limiters for better system protection against peak loads. Robust & sturdy amplifiers, built for continuous use in installation applications, the products offer 4-layer heat & temperature protection & dust entry resistant design with 2u & 3u rack-space models for a compact & powerful performance. "The system provides even distribution throughout the massive venue. It is a state-of-the-art system that delivers tuneful sound," affirms **Wicky Pereira**, Pre-Design & Sales Engineer, VMT Enterprise.

Appreciating the quality of the British Acoustics' sound system, **Fr. T.J. Sebastian Sdb**, Director, Don Bosco, Itanagar, shared, "The music sets high standards

and elevates the sound experience. The system sounds excellent and provides a significant coverage throughout the venue."

Adding onto the praise, **Fr. P.G. Joshua Sdb**, Principal, Don Bosco, Itanagar, said that the British Acoustics' sound system is a, "Phenomenal audio system that has excelled at choral and orchestral worship, leaving a lush and heavenly feel."

Sharing his enthusiasm at working in tandem with Don Bosco School in Itanagar to install a superlative sound system, **Jeff Mandot**, National Sales Manager, VMT Enterprise, concluded, "It is always a pleasure to provide systems to clients that are passionate about sound. We see a clear shift in the market of venues upgrading their system to British Acoustics."



AMANZI SKY DECK AND BAR GETS AN ACOUSTIC UPGRADE WITH MARTIN AUDIO

The **Amanzi Sky Deck And Bar** with contemporary décor and a relaxed vibe is spread over multiple seating areas, including an outdoor pool-facing section and an indoor area. The bar area is dotted with seats and is sought-after. The bar menu is exhaustive and offers sufficient variety. As the night progresses, this place transforms into a club-cum-lounge with loud music and a pulsating vibe.

To create a dynamic ambience for Amanzi Sky Deck And Bar, the directors wanted a system with a minimum visual distraction. After understanding the necessities of the clients and the venue, the directors of the club chose **VMT Enterprise** to provide an ideal audio solution. The installation engineers, in turn, suggested **Martin Audio's** products.

Jeff Mandot, National Sales Manager,

VMT, praised the Martin Audio sound system, "The Martin Audio enables us to present the market with premium quality sound systems that can deliver world-class audio standards."

The **Blackline X218** and **Blackline X10** were the focal products of the system. The Blackline X218 is a 2 x 18" Passive Subwoofer dual-driver, a high-performance subwoofer for use with BlacklineX Series full-range loudspeakers. With an operating range of 42Hz-200Hz + 3dB, it produces high output levels with low distortion and can be used singly or stacked horizontally. It features dual 18" (460mm)/4" (100mm) voice coil and long-excursion drivers in a reflex enclosure with eight large ports that reduce air turbulence at high output levels. Blackline X10 is a 10" Passive Two-way Portable Loudspeaker with high performance



Martin Audio's Blackline X218 and Blackline X10 complemented the dynamic ambience of the venue

yet very compact two-way passive loudspeaker system which utilizes a 10" (250mm)/2.5" (63mm) voice coil LF driver and a 1" (25mm) exit HF compression driver with a 1.4" (35mm) polyimide diaphragm. The rotatable 90° x 50° HF horn has equal horizontal and vertical mouth dimensions for directivity con-

trol in both planes.

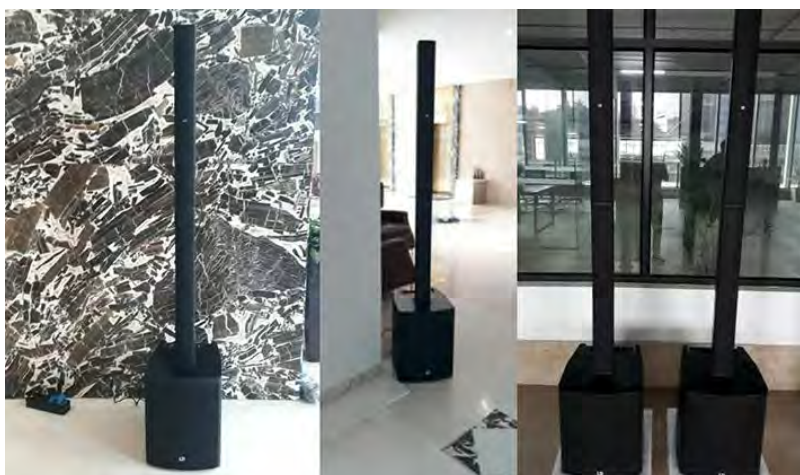
Commenting on the quality of sound system, **Chetan Sonawane**, Director, Amanzi Sky City And Bar, said, "The music sets high standards and elevates the vibe at the club. The system sounds excellent and provides significant coverage throughout the venue."

BANGALORE'S PRIMECO REALTY & CHIN LUNG RESTO BAR LEANS ON LD SYSTEMS FOR AN ACOUSTIC EXPERIENCE UNLIKE ANY OTHER

Primeco Realty Relies on MAUI for an Exceptional Aural Presence

Primeco Realty Pvt. Ltd. is known to offer certain trademark design attributes like plush and elegant lobbies and large picturesque common areas at their iconic high-rise commercial buildings that grace Bangalore's skyline. Primeco's clientele includes some of the biggest names in the IT and corporate sector, along with hospitality giants like

areas, Mr. Rao explains, "Being proud owner and user of 3 different LD systems solutions (MAUI /CURV & DAVE Series) at my private residence; I looked no further when we wanted to install sound solutions that not only looked elegant but also offer a superlative listening experience. This requirement was for the lobby areas and common areas of our buildings housing prestigious IT & corporate offices; and Kern Fernan-



Eight units of the LD Systems MAUI 28 G2 delivered a seamless sound system at Primeco Realty

the Hyatt group.

Promoter of Primeco Realty – **Pramod Rao** – takes every aspect of the visitor and dweller experience very seriously; and this is exactly why the company chose to partner with renowned audio manufacturer LD systems to offer a perfect blend of visual elegance and flawless aural presence at property spaces designed and established by Primeco.

Discussing about one of Primeco's premium establishments acquiring a total of 8 units of the **LD Systems MAUI 28 G2** for their lobby and common

dez of Tiara Audio India LLP arranged for a demo of the Maui 28 G2 system which absolutely blew our minds. The MAUI system offers everything that we desire, and blends so well with the posh aesthetics of our lobbies."

He continues, "We believe that our clients should enjoy a world-class experience at our premises and have access to all amenities in-house without having to look around for various vendors. This is exactly why we're now in the process of installing a brand-new MAUI system as part of a total sound & light solution at the upcoming party



Chin Lung Resto Bar gets a much-appreciated update with DQOR5TB two-way passive loudspeakers and Sub88A subwoofers from LD Systems

area in one of our premium properties. Working with Tiara Audio India LLP is always a pleasure because they have an amazing insight on all the products and technologies, and understand our needs and requirements, while being available and fully committed to support us 24/7."

Bangalore's Chin Lung Resto Bar gets a Quirky Audio Upgrade with LD Systems

Delicious food. Pocket-friendly alcohol. An amazing quirky vibe with inviting interiors that includes chic industrial lighting, wooden dining furniture, and some much-needed greenery around. What also makes Chin Lung even more endearing to patrons is the awesome music experience at the venue, which is thanks to the perfectly understated but extremely impactful sound solution from LD Systems that adorns the entire venue.

Designed and installed by Bangalore-based solutions company Acoustic Energy – Chin Lung sports multiple numbers of compact yet powerful **DQOR5TB two-way passive loudspeakers** that have been mounted at key

points across the venue to optimize coverage of high and mid-range frequencies. Enhancing this aural experience is the sublime low-frequency fidelity offered by multiple numbers of the compact yet powerful **Sub88A subwoofers** that have been neatly tucked away out of sight at key areas across the venue to enhance the overall soundscape.

Paul De Silva of Acoustic Energy shares his comment about the Chin Lung project, stating, "The DQOR5TB and Sub88A is a match made in heaven. The system really does personify the age-old saying that all good things come in small packages. Not only is the system powerful enough to cover the entire venue effortlessly, but one can also experience every little nuance of music with great clarity. Plus installing and tuning the system here was such a breeze. This surely was a fun experience for our team, which was only made better with all the backend support that we received from the team at Stagemix. We're excited to work with LD Systems on our future projects at the earliest!"

UTTAR PRADESH'S NEEMSAR TEMPLE MESMERIZES DEVOTEES WITH BETA3 INDIA

Neemsar Temple in Uttar Pradesh, India, is a cultural landmark of great importance. Being one of the eight self-manifested temples dedicated to Lord Vishnu, Neemsar Temple is often associated with Chakra Kunda, a circular pond where the water too flows in a circular motion. To show reverence, thousands of devotees visit the temple to take a holy dip in the Chakra Kunda every year. To attract a larger footfall and to deliver a mesmerizing acoustic experience that flows well with the serene ambi-

ence around the temple, the temple committee tasked audio integrator Beta3 India to install cutting-edge, pro audio solution within the temple's premises.

Beta3 India installed a pro audio system at the Neemsar Temple, that includes 4 units of **VR110 Line Array**, 6 units of **X10i - 10" Two Way Full Range Speaker**, 4 units of **VX12a** and 2 units of **VX15a- Two Way Full Range Active Speakers**, complemented by 2 units of **TW118B Subs - Single 18" Subwoofer** on the floor. Class D Amplification and

digital processing came from **Σ C2600U**.

The Neemsar Temple committee waxed poetic about the installed pro audio system and praised Beta3 India's choice of pro audio equipment, "Everyone immediately appreciates the power of the Beta3 system. But even more compelling is how music has enhanced the ambience of this holy place with melodic effect, which came from Beta3's unique sound."



Beta3 India's VR110 Line Array, X10i, VX12a VX15a, TW118B Subs, and ΣC2600U formed the venue's audio system

CHAUVET PROFESSIONAL LAUNCHES OVATION E-2 FC

CHAUVET Professional recently launched the **Ovation E-2 FC**. With an RGBAL engine that delivers richly textured colors and smooth, even whites (it has a CRI of 93), plus an integrated 25-50 degree zoom lens, the Ovation E-2 FC delivers the kind of performance associated with larger fixtures, but in a compact body that makes it ideally suited for small and mid-sized applications.

Weighing in at under 15 lbs. and

measuring 18.1 x 12.2 x 17.5 inches (461 x 310 x 445 mm), the fixture puts out 1107 lux at 5 meters when used at its narrowest and 488 lux at 5 meters when used at its widest beam angle.

The Ovation E-2 FC features advanced optics, which means that in addition to rendering beautiful colours, it projects sharp, crisp gobos that add depth to any design. A convenient dedicated focus mode button allows one-touch focusing without the aid of a board operator. A

Virtual Color Wheel and preset white CCTs added to the conveniences offered by this versatile fixture, which can be controlled via DMX or RDM.

Other features in this ultra-quiet fixture include selectable PWM, +/- Green adjustment and emulated red-shift, a built-in gobo slot, electronic dimming, and USB ports for software updates.



A-PRO LIGHTING LIGHTS UP SANWALIA JI TEMPLE & ALBERT HALL MUSEUM IN RAJASTHAN

The **Shri Sanwalia Ji Prakatya Sthal Mandir Bagund - Bhadsoda** in Chittorgarh, Rajasthan are dedicated to the dusky form of Krishna, owing to the fact that in 1840, during a road construc-

single financial hurdle in life.

In order to elevate the temple's allure and provide an unforgettable visual experience to the visitors, **A-Pro Lighting** was tasked with installing mesmerizing

Rajasthan's oldest state museum, is home to some of the finest collection of artifacts from around the world, including paintings, carpets, jewelry, stone, ivory, and metal sculptures, and

equipment from A-Pro Lighting.

To add a touch of vibrancy to the intricate exterior architecture of the Albert Hall Museum, A-Pro Lighting installed **IRIS**, a 12R Sharpy with original **Osram**



Shri Sanwalia Ji Prakatya Sthal Mandir Bagund, Bhadsoda

tion between Udaipur and Chittor, the workers excavated three statues of Lord Krishna in a dusky form under an acacia tree in Bagund village. It is a temple of much repute since it is believed that devotees who pray here never face a

lighting fixtures at the site. The team at A-Pro Lighting installed **IRIS**, a 12R Sharpy with original **Osram Neolux lamp**, a powerful beam, and 14 **Glass Gobos**.

The **Albert Hall Museum** in Jaipur,



Albert Hall Museum, Jaipur

coins from the Gupta, Kushan, Mughal, Delhi Sultanate, and British dynasties. Designed by **Samuel Swinton Jacob** in the Indo-Saracenic style with tinges of Rajput influences incorporated in the structural fabric, the Albert Hall Museum's façade was lit up with pro lighting

Neolux lamp, a powerful beam, and 14 **Glass Gobos**, **Revolve**, 12R Sharpy featuring a 295-watt bulb with anti-reflection coated glass lens and a powerful beam, and **Morgan LED Par** – 18 pcs x 10-watt LED in RGBW variant and 54 pcs x 3-watt LED in Warm White variant.

ELATION FULL-COLOUR KL PANEL XL SOFT LIGHT NOW AVAILABLE IN IP65 VERSION

The full-colour-spectrum soft light, **KL Panel XL Soft Light**, is available in an IP65 version—the **KL Panel XL IP™**.

The fixture's IP65 design means the KL Panel XL IP can be used in a wider range of applications and locations. Suitable for use in both indoor and outdoor settings, it is an ideal soft light solution for on-location applications. Its weatherproof design allows it to function properly in harsh environments and adverse conditions, eliminating the need for frequent cleaning and maintenance and saving both time and cost.

The KL Panel XL IP offers exceptional output with precise control over colour temperature and full-spectrum



colour rendering for an even wash coverage. Using a highly-efficient 570W RGBW+ Lime + Cyan LED Array, the KL Panel XL IP produces beautifully soft white or full-colour washes up to 40,000 field lumens at a 100° half-peak angle.

The KL Panel XL IP's LED array is equipped with multi-zone control, enabling dynamic colour access, visually striking effects and realistic reproductions, such as fire, lightning, emergency vehicle flashes and various strobe effects. Besides its wide spectrum of chromatic options, this

dynamic soft light luminaire includes other useful design features like smooth 16-bit dimming and selectable dimming curve modes for programming ease, as well as a high-speed electronic shutter and strobe.

The KL Panel XL IP is fully self-contained without the need for an external power supply and offers power pass through for easy linking of multiple units. It is energy efficient for such a bright soft light, consuming 681W of max power, and offers other benefits of LED like greater reliability, a long LED life rating and less maintenance for a lower cost of ownership.

16th edition



INDIAN
RECORDING
ARTS ACADEMY
AWARDS

Supported by 

IRAA JURY'S SONG OF THE YEAR SELECTIONS


- Alare
- Baarishon Mein
- This Will Be My Year
- Bohurupe
- Chaka Chak
- Dear Madeline
- Enjoy Enjaami
- Fearless feat. Ikka
- Ghar Aao Na
- Idhuvum Kadandhu Pogum
- Ilsheguri Prem
- Jugnu
- Lut Gaye
- Mali Absolute
- Mann Bharya
- Para Brahman
- Param Sundari
- Quest
- Raataan Lambiyan
- Soch Liya
- Srivalli
- Rang
- Raag Baageshwari
- Inside Out
- Titar Bitar
- Uyire
- Run
- Yaamili Yaamiliyaa
- Yaaraiyum Ivlo Azhaga

The IRAA 2022 Jury Award for Song of the Year will take into consideration not only the lyrics, composition and overall music but will be the first award which integrates the finer nuances of mixing and mastering while selecting the Song of the Year

The Song of the Year will be announced during the streaming of the IRAA Awards 2022.

Date to be announced soon!

Media Partner

 sudeep audio

ROBE LIGHTING'S JOHN BILYK PASSES AWAY

Robe Lighting, Inc. announced that **John Bilyk**, a well-known and colourful figure in the Canadian and American stage lighting communities, died on the evening of December 11, 2022. He was 70 years old. John passed away at home peacefully, after a nearly year-long battle with brain cancer, and he is survived by his wife, Tracey.

John had a storied career in stage lighting that spanned 40 plus years. However, one of John's early formative work experiences was with a men's clothing store in Winnipeg owned by Marc Raymond. Raymond later co-founded Westsun, which grew to be a major Canadian production and installation company. Soon after, John started his stage lighting career at Westsun in Winnipeg. John then relocated to Toronto, partnering with Brock McGinnis to establish the Canadian lighting distribution firm Novatec. Novatec represented notable lighting manufacturers

including High End Systems and Celco in the Canadian marketplace. He then joined Fourth Phase (later to become PRG) who had purchased Westsun, to establish one of the first used stage lighting sales outlets, 2nd Stage. John then joined Vari*Lite as the Canadian Sales Manager for several years, reconnecting with Bob Schacherl, whom John previously knew from High End Systems. Shortly after Schacherl joined Czech lighting manufacturer Robe lighting s.r.o., John rejoined his former colleague as Robe Canadian Sales Manager in 2016, where he worked until his passing.

Robert Mokry of LightParts Inc. said, "I met John when I was a sales rep at High End in the 90's. I was assigned to manage Canada, and our distributor was Novatec. I was fortunate that John and I soon became close friends, in addition to our business relationship. I had never met anyone quite like John, and still haven't."

Mokry continued, "First off, John was always a very snappy dresser. I don't ever recall seeing him in a t-shirt in the

30+ years I knew him, even when we shared hotel rooms while on the road together. He was just such a smooth character, but also very down to earth. We could dine on fancy French food and fine wines one night, and greasy Tex Mex and Corona beer the next night, and he was equally happy."

"John was also quite a good golfer, and we enjoyed many rounds together. However, John would 'waggle' quite a bit at the tee. I would of course hassle him about that, which only encouraged him to do it more. John really knew his business on the lighting side and could speak to designers and technicians very competently. He was a fun guy to talk to and hang out with. Customers loved him. I also loved him and miss him dearly. Fly on my brother."

Bruce Jordahl, High End Systems / ETC, added, "John was instrumental in the global success of our products early on, and he continued to be a valued member of the automated lighting industry across multiple decades and



Late John Bilyk, Sales Manager, Robe Lighting

manufacturers. We truly appreciated his industry wisdom and insight, but moreso his quirkiness and incredibly loveable nature. We will miss him and send our condolences to his loved ones during this difficult time."

Craig Burross, Chief Sales Officer, Robe Lighting, Inc. concluded, "We all fortunately lived many wonderful memories together with John that will never be forgotten. Rest in Peace J.B.!"

ELIMINATOR LIGHTING LAUNCHES NEW VORTEX BARREL SCANNER

Eliminator Lighting's Vortex Barrel Scanner is a compact and lightweight entertainment lighting fixture that offers an impressive output. Combining a potent gobo flower effect with a rotating mirror barrel, it generates a myriad of sharp pattern projections that together produce a room-filling effect. It is ideal both for permanent installation in all kinds of entertainment venues as well as for use by mobile entertainers and performers.

At the heart of the Vortex is an extremely efficient 80W white light LED engine, which is positioned behind a combined colour and GOBO wheel. This offers a selection of 10 colour and GOBO pairings – including open white, a beam reducer and a multi-coloured pattern – which have been carefully selected for generating both aerial beam effects and intricate surface pattern projections. A manual focus knob is located on the rear of the fixture, which can be used to ensure sharp GOBOs at variable projection distances.

Inside the unit, the light from the LED engine is directed through the colour/GOBO wheel onto a bi-directional rotating mirror dish, which multiplies

the single 5-degree beam. Finally, the multiple GOBO patterns generated by the mirror dish are reflected from the external rotating mirror barrel to output a myriad of animated beams. In addition to continuous 360-degree rotation, the mirror barrel can also pan through 180-degrees, which allows the fixture's beams to truly fill an entire room.

Through varying the rotation speed of both the internal mirror dish and external mirror barrel, a wide variety of effects can be created. These range from slow subtle looks, ideal for the first dance at a wedding, through to high impact, rapidly moving effects that can be used to accompany the fastest EDM or rock music. This makes the fixture perfect for use by mobile DJs, entertainers, duos, bands, and other performers. It is also ideally suited to installation in a wide variety of venues, including bars, lounges, small nightclubs, entertainment centers, roller rinks, bowling alleys and recreation centers, which require wide coverage from a compact fixture.

Further variety in the effects that can be created by the Vortex is provided through the unit's digital light source.

The LED engine offers smooth dimming – with customizable mode, curve and speed – as well as variable speed strobing effects. The GOBO wheel also provides a shake function, which can be applied to any of the 10 pattern options at variable speed.

The Vortex has a visually striking moulded plastic outer shell, with compact dimensions of 12.3" x 11.11" x 6.2" / 312 x 282 x 157mm (LxWxH). At 7.1 lbs. / 3.2Kg, it is also lightweight, making it easy to store, transport and setup. A robust mounting bracket is located on the rear of the fixture, which locks securely into place using a pair of thumb-tightening screws. This has a 180-degree range and can be used either to mount the unit to the top of a tripod or to attach a clamp to allow it to hang from a truss or T-bar.

"A small fixture that packs a big punch, the new Vortex from Eliminator is a versatile multi moonflower effect that offers incredible value for money," comments **Albert Paredes**, Product Manager for Eliminator Lighting. "This



affordable fixture will fill an entire room with vibrant colours, sharp GOBO projections and razor-sharp aerial effects, offering everything from slow and subtle looks to intense barrages of beams, depending on the chosen motor speeds. This makes it ideal for mobile entertainers as well permanent installation in venues looking for a flexible fixture capable of creating a room-filling lightshow."

ARRI ACQUIRES CLAYPAKY

ARRI announced the acquisition of Claypaky from ams OSRAM. With this takeover, the film technology company gained one of the top lighting manufacturers in the entertainment and stage industry.

"With Claypaky as part of our corporate group, ARRI will become a leading lighting solutions provider with top brands for both the motion picture and live entertainment markets," emphasized **Dr. Matthias Erb**, Chairman of the ARRI Executive Board. "The expertise, passion, and dedication to lighting that distin-

guishes both companies also demonstrates that we are well-matched. These similarities form a strong foundation for building a successful cooperation and the further development of our business areas."

Marcus Graser, CEO of Claypaky, added: "We are very happy to be joining the ARRI family. Both companies have a leading position in their field, thanks to a deep market knowledge, innovation power, and customer understanding. We both share a rich heritage and an unconditional passion for technology and innovation in a professional industry that



Dr Matthias Erb, ARRI

fascinates thousands of people around the world. Together with ARRI, we will continue to work on our vision to create the best-in-class lighting equipment and services while offering world-class reference products to an even broader customer base."

The employees and the Claypaky



Marcus Graser, Claypaky

brand are invaluable assets and key success factors when bringing both companies together. Claypaky will remain as an organization with its brand, its setup and structure of staff and locations. The same holds true for ARRI, the current setup and locations will remain.

BEYMA APPOINTS PINK NOISE PROFESSIONAL AS EXCLUSIVE DISTRIBUTOR IN INDIA

Acustica Beyma has appointed **Pink Noise Professionals** as its exclusive distribution partner in India. This

strategic agreement will help bring the entire Beyma product catalogue to the region.



L to R: Shailesh Kumar Awasthi - Director, Sales & Technical, Pink Noise Professionals, Pedro Enguidanos -Asia Sales Director, Beyma, Vikram Yadav - Director, Sales & Operations, Pink Noise Professionals, Heena Golani, General Manager, Pink Noise Professionals

"After long conversations and analysis started before the pandemic, we are now delighted to welcome Pink Noise Professionals into the Beyma family as our exclusive distribution partner in India," says **Pedro Enguidanos**, Sales Asia Director at Acustica Beyma. "Pink Noise Professionals is a young, fast-growing company that is already impacting the pro audio industry throughout the region. We are excited to work with the Pink Noise Professionals team and its extensive nationwide dealer network. The company's expertise and resources will help Beyma grow its presence in what has historically been a very important market for the brand."

Pink Noise Professionals caters to many industries, including pro audio, broadcast, live sound, studio production, hi-fi, public sector and hospitality, offering the latest in upmarket product

range and technology. Pink Noise Professionals carries and promotes the highest quality equipment to create the best possible solutions.

"The addition of such a respected manufacturer as Acustica Beyma to the brands we represent will help us leverage our position in the Indian market, I have a strong belief that the speaker component business will grow even faster than the finished goods, post COVID-19, the market is also improving", says **Vikram Yadav**, Founder and Director of Pink Noise Professionals. "Together with Beyma, we are committed to providing our customers with the exceptional technical expertise and support for which Pink Noise professionals is known while offering innovative products and technologies that have a significant impact on the audio industry in the Indian market.

MINDSTEC BECOMES LATEST NEWTEK DISTRIBUTOR

NewTek, one of the global leaders in IP-based video technology and part of the Vizrt Group, today announces **Mindstec Distribution** as its newest distributor in APAC, with a specific focus on India.

The demand for NewTek solutions has been growing in the ProAV markets. With content creation and consumption on a continuous rise, the need for quality products for video production across various industries is steadily increasing. Mindstec is the latest distributor appointed in the area, and the seventh appointed this year.

Mindstec's expertise in procurement and distribution of high-end audio-visu-

al system solutions make them a perfect fit as a NewTek partner. Mindstec, is a leader in AV distribution, successfully bringing the latest cutting-edge technology to the Asian market. With NewTek as part of its portfolio now, it widens its ability to support customers in need of AV-over-IP workflows, and those looking for beyond broadcast grade production solutions.

"With Mindstec, customers in India will have access to NewTek solutions with speed and efficiency, and NewTek will expand its global presence further in a region with no shortage of creative talent and demand. It's an excellent match, which will see audio-visual

solutions reach content creators who can make the best out of NewTek's innovative technologies," states, **Sabarishan**, Regional Director, Mindstec Distribution.

"The APAC tech market, especially with education tech, is expected to boom in the next few years. We have the most accessible, complete, and innovative solutions for the education sector, but also corporate, Houses of Worship, sports and esports, the list goes on. By partnering with strong distributors like Mindstec, we can ensure our technologies reach the hands of those that need our tech, but also that they have the local expertise to support.



It's a great match, and we can't wait to see the success stories start to emerge," says **Paul Dobbs**, NewTek Sales Director, APAC.

Mindstec's highly trained techno-specialists ensure its customers are always at the forefront of today's cutting-edge AV technology, which now includes NewTek's latest innovations like **NewTek NDI® PTZ3 UHD camera**, **NDI® converter units**, automated video capture solution **CaptureCast**, replay system **3Play**, and other software-defined visual solutions.

DAS AUDIO APPOINTS STAGEMIX TECHNOLOGIES AS SOLE INDIAN DISTRIBUTOR

DAS Audio has appointed **Stagemix Technologies** as its distribution partner in India. This strategic agreement will help expand DAS Audio's presence in the region.

Explaining the reason behind choosing Stagemix Technologies as its Indian distributor, **Juan Luis Garcia**, Head of Sales for Southeast Asia and Oceania, DAS Audio, shared, "As India's audio industry has experienced a tremendous technological change over the past 10 years, we decided to make a fresh start here. We are delighted to welcome Stagemix Technologies into the DAS Audio family as our exclusive distribution partner in India. The company's expertise and resources will help DAS Audio grow its presence in what has historically been a very important market for our brand. We consider Stagemix Technologies to be one of the best pro sound distributors in India and a great partner with

an incredible customer-focused attitude, which fits perfectly with the DAS Audio philosophy. We look forward to a long-term relationship with Stagemix Technologies."

Stagemix Technologies covers several vertical markets in the pro audio industry – right from touring to rental and even installation, offering state-of-the-art audio products and technologies, which guarantees quality at every step of distribution.

"Securing such a well-reputed manufacturer such as DAS Audio to the list of brands we represent will allow us to anchor ourselves in the Indian market, I strongly believe that the pro audio business will grow at an unprecedented rate, and at Stagemix, our aim is to stay a step ahead, at all time", says **Karan Nagpal**, Director, Stagemix Technologies. "With DAS Audio, we intend to deliver phenomenal technical expertise while providing ingenious products and technologies that can be a game-changer for the Indian audio industry."



L to R: Sudeep Shah, Sales Executive, Stagemix Technologies; Manuel Peris, DAS Audio Group SL; Eshdeep Bhasin, Director, Stagemix Technologies and Karan Nagpal, Director, Stagemix Technologies

HI-TECH AUDIO & IMAGE ORGANISED ANNUAL CLAYPAKY OPEN DAY IN INDIA

Hi-Tech Audio & Image, distributor for **Claypaky** in India, organised the annual **Claypaky Open Day** at their corporate experience centre in New Delhi, showcasing a range of their products.

Dylan De Matteo – Product Specialist from Claypaky in Italy – conducted the demo session for attendees from various Delhi-based hire companies. Amongst the invitees were several Light Consultants and Lighting Designers in attendance.

During the sessions, all sales-related queries were answered by **Pankil Ahu-**

ja, Claypaky's Regional Sales Manager for the Indian sub-continent. As to the range of products, for the first time in India, attendees set eyes on Claypaky's LED-based moving heads of **Midi B**, **Sinfonya Profile 600** and **Arolla Profile HP**.

Dylan De Matteo's experience with Claypaky products was much appreciated by the attendees. Prior to the event, Dylan took the initiative to set-up the lighting fixtures along with the Hi-Tech Audio & Image technical team. Dylan said, "It was a privilege to be able to participate in this important event

in the presence of the whole Hi-Tech Audio & Image team and showcase all the new products to such a large audience." He continues, "India is definitely an emerging market that needs cutting-edge, high-quality products and I'm glad that many customers have chosen Claypaky as their official partner for their current and future events. Thanks again to all the Hi-Tech team, especially **Rajan Gupta**, **Nirdosh Aggarwal** and my colleague **Pankil Ahuja** for organising this Open Day."

Claypaky's recently-launched **Tambo-**

ra Batten was also exhibited at the Open Day. This high-power LED batten fixture has advanced pixel mapping capabilities and has a unique "three-layer" profile that can be seamlessly arranged in line or in a matrix for amazing lighting effects. Available in round- or square-sized lens configuration, the Tambora Batten is an adaptable lighting instrument that addresses many needs for inline or matrix lighting applications, with

an excellent cost-to-performance ratio.

Pankil Ahuja, who played a pivotal role in organising the Open Day, shares his experience about the event. "It was a good opportunity to look at the latest arrivals from Claypaky for Hi-Tech Audio & Image during the Open Day. This on-invite Open Day was restricted to our selected customers. Sinfonya Profile 600 was not the only product displayed there. Customers were amazed by the performance of Xtylos (LASER-based moving head). Medium washes like the Midi B were the choice of customers with regards to the investment and performance ratio. We are planning more such Open Days in 2023, all across India, where we will do technical comparisons and educate customers about the quality of light. We are also working with more and more Lighting Designers to update them on the latest innovations from Claypaky."

"Organising the Open Day was a necessary marketing and sales activity, as we could meet and greet our clients in person. When we talk to our clients, demonstrating the various products of our brands, it makes a huge difference



Apart from the recently-launched Tambora Batten, the Sinfonya Profile 600, Xtylos, and Midi B from Claypaky were exhibited at the Annual Claypaky Open Day

(Continued on page 55)

PSNI GLOBAL ALLIANCE APPOINTS SENNHEISER AS GLOBAL PREFERRED VENDOR PARTNER

PSNI Global Alliance, one of the leading global networks of premier technology integrators and service providers, announced a strategic partnership with **Sennheiser**, the preferred choice for advanced audio technology that makes collaboration and learning easier, as its latest Global Preferred Vendor Partner (PVP).

With this new partnership, Sennheiser has become a global strategic manufacturing partner of The Alliance, granting access to its Certified Solution Providers (CSPs) to pursue new market opportunities and enable worldwide, standardized solutions for their customers.

"We are honored to have been selected as a PSNI Preferred Vendor Partner," said **Charlie Jones**, Global Alliance & Partnership Manager, Business Communication, Sennheiser. "As PSNI continues to grow globally, there is need for partners that can deliver in a timely fashion to every corner of the globe, which was one of the key considerations when we began our discussions. We are excited to work with the CSPs to deliver world-

class audio solutions to their customers, wherever they may be."

"We welcome Sennheiser as a valuable addition to our growing network of PVPs," said **Tom Roberts**, director of vendor programs for The Alliance. "Their growing portfolio of market-leading audio solutions for corporate and educational environments, as well as their position as an audio industry innovator, gives our CSPs a strong asset within PSNI's portfolio."

The PSNI Global Alliance Preferred Vendor Partner program is available to an exclusive group of manufacturers, distributors, and service providers in the audio-visual, unified communications, and professional audio and video industry. All vendors within the PSNI PVP program are pre-screened by the Certified Solution Providers (CSPs) of The Alliance to ensure that only the best technology providers are represented. Customers who engage with The Alliance are assured seamless installation and support, benefiting from the collective expertise of PSNI's integrators and vendors alike.



From L-R: **Tom Roberts**, Director of Vendor Program, PSNI Global Alliance, **Charlie Jones**, Global Alliance & Partnership Manager, Sennheiser, and **Christopher Miller**, Director, PSNI Global Alliance

BARCO G-SERIES REACHES THE MARK OF 10,000 UNITS SOLD

Barco, one of the world-leading manufacturers of digital projection and innovative visualization technologies, shared a new milestone for its G-series as the sales numbers of the single-chip laser phosphor projectors has hit the mark of 10,000 units. The achievement is

a momentous attestation to both the growth of immersive experiences and the sustained efforts of the company and its partners in bringing best-seller solutions for every budget.

The **Barco G-series** bring uncompromised laser phosphor projection with six cost-effective projectors between 7

and 22K lumens. With premium value at a very competitive pricing, the series opens up the possibilities to a wider range of applications to treat museum and theme park audiences to compelling experiences.

"Upon the launch of the very first G60, it was an immediate bestseller," says **Frederik Bouckaert**, Product Manager Projection at Barco. "As the platform continued to grow with the addition of new models like the G62 and the G100, so did the sales volumes, especially in the last year. We're proud to now have 10,000 G-series projectors in the field with installations in prestigious award-winning projects like Culturespaces' digital art exhibitions, Expo 2020 and Museum of the Future."

This growth can largely be attributed to the demand for engaging and

interactive experiences in theme parks and museums, as well as the increasing popularity of digital art installations. And in this realm of immersive experiences, projectors play a crucial role. From large-scale projections on buildings and landmarks to smaller-scale installations in galleries and other cultural spaces, artists are using projection technology to create interactive, multi-sensory experiences that engage and inspire audiences.

Barco believes the demand for projectors in these markets is expected to continue to grow in the coming years, as more and more organizations and artists turn to projection technology to create unique and engaging experiences for their audiences.



HI-TECH AUDIO & IMAGE ORGANISED ANNUAL... (Continued from page 54)

with hands-on demo sessions. We are very grateful to Dylan De Matteo who travelled to India from Italy and supported us in organising the Open Day. With Pankil Ahuja's sales experience and product knowledge, we are able

to show the advantages of Claypaky fixtures over Chinese-manufactured lights," shares **Nirdosh Aggarwal**, Managing Director of Hi-Tech Audio & Image.

Rajan Gupta, CEO & Founder of

Hi-Tech Audio & Image states, "The professional lighting industry in India is still growing and expanding. With the presence of experienced lighting designers who want to experiment with new ideas and rental companies eager

to expand their lighting inventory, we have a booming market opportunity for brands like Claypaky. Thus, organising such Open Days across the country with Claypaky will educate interested clients and open new avenues".

SUN INFONET SHOWCASES PREMIUM AUDIO SOLUTIONS BY SHURE AT THE SUN INFONET SYMPOSIUM 2022

Continuing the legacy of conducting **Sun Infonet Symposium** for showcasing the latest audio solutions to the brand's partners and end-users, Sun Infonet Private Limited, after the gap of two years post COVID-19, recently organized its namesake Symposium 2022 in The Park, Kolkata, India, where it

displayed the latest audio solutions from Shure for all to experience.

Shure recently launched the **MXA920 Ceiling Array Microphone**, which was the hero product at the show, showcased along with **Shure Microflex Wireless Systems**.

According to **Suvankar Ghosh**, Manager – East and Northeast region, "The

Eastern region was not much aware of sound reinforcement and voice lift features which we could achieve with the MXA920. Giving them a live experience on voice lift with MXA920, P300, and MX-N5WC was the main priority and agenda of the show. Apart from live experience, hands-on experience with the wireless system, MXW solution, and MXCW Solu-

tion was also liked and enjoyed by the attendees".

Suvankar confidently claims that after conducting this show, partners are more confident about Shure products.

Mani Kandan, General Manager – Pre Sales, East, Northeast and Southern regions, shared, "These kinds of shows are much needed. If our channel partners are confident enough, they can pitch the product line that Sun Infonet has to the end-user or any tender. Voice lift and sound reinforcement were the features that Eastern region had heard about many times, but it was a novel experience for them to see the technology at work."

The show was followed by a lunch which was attended by system integrators, consultants and end-users from Kolkata and neighbouring cities from across India. Sun Infonet is focused on conducting similar symposiums in the near future all across India.



The attendees at the Sun Infonet Symposium 2022 listen attentively as the presenter talks about the latest audio solutions from Shure

ADAM HALL ANNOUNCES NEW BUSINESS – ADAM HALL INTEGRATED SYSTEMS

With its own product team led by **Gabriel Alonso Calvillo**, **Adam Hall Integrated Systems** will act as an independent business unit for AVL specialists and support specialist planners, integrators and end users in finding and specifying the right products for their projects. By bundling all installation products from the various Adam Hall Group brands, the company's in-house application experts are on hand to provide expert advice and support at every stage of a project - from bidding to system design, training and commissioning.

"We have been working on the development of our Install product portfolio for several years. With the new solutions that we are presenting at ISE 2023, we offer a comprehensive range of products for commercial audio applications," explains Gabriel Alonso Calvillo. "It is therefore only logical that we build a tailor-made environment with

its own identity for our global installation target group."

For CEO **Alexander Pietschmann**, now is the perfect time to take this step: "From humble beginnings in 1975, we have grown into one of the top three

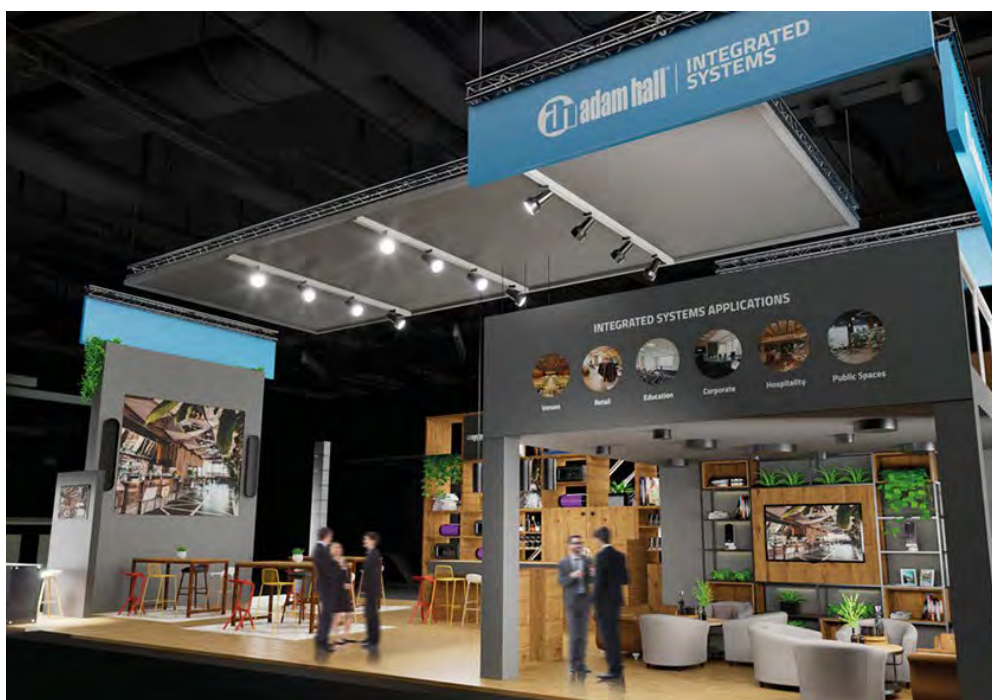
audio and lighting manufacturers in Europe and a highly successful international distributor. Of course, we have a strong heritage in live events technology, because this is where it all started for us. At the same time, however, we have

been developing products for the AVL sector for many years, as our customers' demand for reliable, user-friendly products in this area has increased. As the AVL division of the Adam Hall Group continues to thrive, it was a natural step

to create a dedicated division with a dedicated team to better serve this important market."

In addition to Gabriel Alonso Calvillo, who leads the product team, **Nik Gledic**, Adam Hall's Global Sales Director, is building an independent Sales & Business Development team for the new AVL business area. "The times at the Adam Hall Group are very exciting and the potential is huge," confirms Gledic.

He adds, "We are currently looking for committed sales specialists who would like to join us. Our goal is to build a team of AV experts and become as successful in the installation market as in our other established segments."



AVPL TOURNAMENT SET TO RAISE THE BAR FOR COMPETITIVE SPORTS IN THE AV INDUSTRY

The AVPL (Audio Visual Premier League) is a cumulative one-of-a-kind initiative of the Indian AV Industry that, through interactive events, facilitates networking, team building, and health and wellness-promoting fun activities between AV professionals, integrators, OEMs, consultants, and distributors from around the country to create a sense of camaraderie and community within the AV industry.

The AVPL is dedicated to promoting and growing the competitive sports scene by providing a platform for players to showcase their skills and connect with others who share their passion for sports. The AVPL committee, comprising of several eminent faces from the Indian AV industry, is as follows:

Vineet Singh, Director, HMPL Consulting

Nithin Manjunathan, CTS, Associate Director, HMPL Consulting

Raguvaran Patel, CTS, Director, Lightware Visual Engineering India

Shobha K, Regional Account Specialist, Extron Electronics

Bharath Kumar A., Director of Global & Strategic Accounts, Kramer Electronics

Maresh Kumar, Director of Sales India, Extron Electronics

Prakash Gururao, Director, Sigma AVIT Technology Solutions

Naveen Sridhara, Country Manager, Beyerdynamic India

Recently, AVPL announced its



The representatives of all AVPL teams strike a pose with their teams' jerseys

upcoming cricket tournament. The tournament will feature 120 + players competing in a round-robin format cricket tournament, with matches taking place over an entire day of fun with cricket. In addition to the main event, there will also be a variety of side events and activities for attendees to enjoy.

The representatives of all AVPL teams strike a pose with their teams' jerseys

The names of the teams participating in the AVPL are as follows:

- Mavericks by **Absen**
- Supernovas by **Jabra**
- Hurricanes by **Q-SYS**
- Strikers by **Sennheiser**
- Challengers by **Unilumin**
- Legends by **Sigma AVIT**
- Spartans by **AVI-SPL**
- Chargers by **HARMAN**

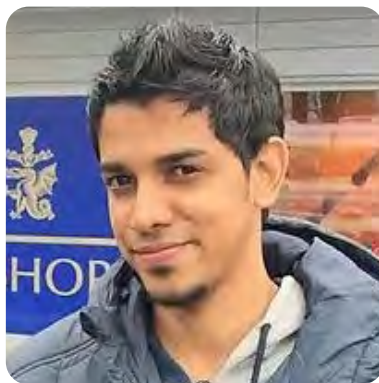
"We're excited to be hosting this

tournament and to see some of the best players from the AV industry compete against each other," said Vineet Singh, Committee Member, AVPL. "This is a great opportunity for the sports enthusiasts from the AV industry to come together and enjoy some high-level competition, and we can't wait to see which teams comes out on top."

The AVPL is set to take place on 25th February, 2023 in Bangalore.



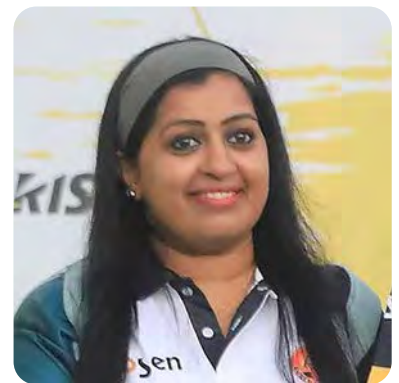
Vineet Singh



Nithin Manjunathan



Raguvaran Patel



Shobha K.



Bharath Kumar A.



Maresh Kumar



Prakash Gururao



Naveen Sridhara

SAMSUNG UNVEILS SMARTTHINGS STATION AT CES 2023

Samsung Electronics Co., Ltd. announced **SmartThings Station**, an easy-to-use, affordable smart home hub and fast charging pad.

As the smart home market continues to grow, users need simple, interoperable, and dependable ways

their day and help to reduce energy waste such as switching off lights and appliances easily.

"Having a smarter home shouldn't be complicated or expensive. So we wanted to create SmartThings Station as a simple, reliable and expandable smart

to set up. When a user powers the device on for the first time, pop-up messages will appear on a user's Samsung Galaxy smartphone to help guide users through the connection process smoothly. Users may also choose the option to efficiently onboard devices with a simple scan of a

dim the lights. When leaving home, the SmartThings Station can turn off power outlets and unused appliances to save energy, and activate a security system. Users might also want a gaming routine, which could activate specific TV and lighting settings and turn on 'Do not Disturb' mode.

Consumers can trigger up to three different routines just by pressing the Smart Button, with short press, long press, or double press activations. Routines can also be activated via the SmartThings app, whether people are at home or away.

SmartThings Station is also integrated with Samsung's **SmartThings Find**, a rapidly growing asset tracking service. It helps users to find misplaced devices – double pressing the Smart Button can ring your nearby phone making it easier to find.

SmartThings Station is also a powerful charging pad supporting up to 15W wireless charging. Users can choose to receive an alert when charging is completed, so they can pick up play where they have left off or switch to charge another device.



to connect a more significant number of devices. SmartThings Station offers quick setup and compatibility with a range of smart home products including Matter devices, with the simplicity that users expect from Samsung. With SmartThings Station, users can automate different aspects of their home environment, setting routines that add convenience to

home hub," said **Jaeyeon Jung**, Executive Vice President and Head of SmartThings, Device Platform Center at Samsung Electronics. "The number of devices in a connected home continues to grow, especially in light of the recent Matter standard launch. We're proud to play a role in making it easier to embrace this exciting technology."

Samsung's SmartThings Station is easy

to set up. When a user powers the device

on for the first time, pop-up messages will appear on a user's Samsung Galaxy smartphone to help guide users through the connection process smoothly. Users may also choose the option to efficiently onboard devices with a simple scan of a QR code with a smartphone camera. With a press of the Smart Button on the SmartThings Station, users can activate a routine created on their SmartThings app. For example, when it's time for bed, a quick tap could trigger a routine for sleep – which could turn off the lights, close the blinds and lower the temperature. Or, if a movie night is on the cards, a movie routine could turn on the TV and

SONY INDIA ANNOUNCES NEW HT-A5000 & HT-A3000 SOUNDBARS FOR HOME CINEMA ENTHUSIASTS

Sony India announced its latest range of **A Series Home Theatre Systems** with **HT-A5000** and **HT-A3000** soundbars which offers an advanced and revolutionary multi-dimensional sound experience with **Dolby Atmos®** and **DTS:X®**. Powered with modern surround sound technology that creates an unbelievable immersive soundscape for any music, film, or game. The soundbar works well with Google Assistant or Amazon Alexa enabled devices.

HT-A5000 and HT-A3000 soundbars work together to deliver clear,

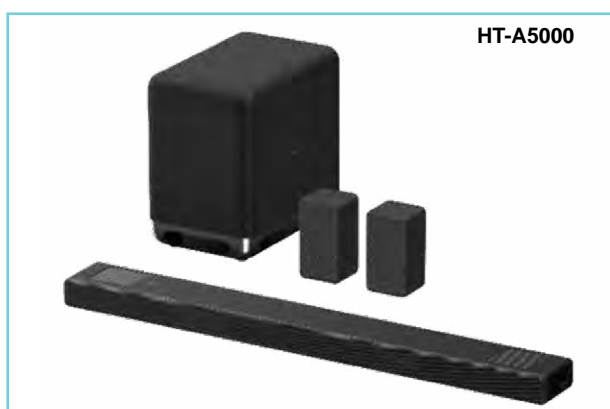
wide-ranging sound. The HT-A5000 5.1.2 channel soundbar comes with a built-in dual subwoofer for deep bass and two up-firing speakers that reflect sound off the ceiling for immersive overhead audio. The HT-A3000 features 3.1 channels, three front speakers including a dedicated centre speaker for clear dialogue and a built-in dual subwoofer for deep bass. It also features two side beam tweeters that bounce sound off the side walls and expand surround sound to give you an immersive experience

that goes beyond the size of your TV. The up-firing speakers, built-in dual subwoofer and front speakers feature Sony's unique X-Balanced Speaker Unit. Adding an optional wireless subwoofer that handles low frequencies allows the sound system to reproduce sound with greater impact and power than before.

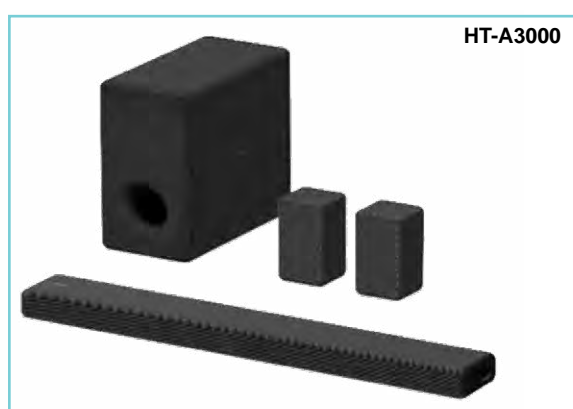
The HT-A5000 has a premium minimalist Omnidirectional Block design with sophisticated rounded edges. The HT-A3000 and optional speakers are also designed in an Omnidirectional

Block concept. Its sophisticated rounded edges represent a single solid block providing wide-spreading sound, while the combination of rich material textures blends easily with any living room environment. Setting up the soundbars couldn't be easier thanks to HDMI eARC, Optical-in and USB port.

Both soundbars come with 360 Spatial Sound Mapping technology and Sound Field Optimization, which uses built-in microphones to ingeniously measure the relative height and position of the soundbar and rear speakers. Based on positional information, it then creates multiple phantom speakers by synthesizing sound waves. Because of this, it helps producing room filling sound, immersing everyone present. The HT-A5000 also features S-Force PRO Front Surround to make an even wider horizontal sound field. The HT-A5000 and HT-A3000 gives you access to Sony's revolutionary 360 Spatial Sound Mapping technology when connected to Sony's wireless rear speakers **SA-RS5** and **SA-RS3S**.



HT-A5000

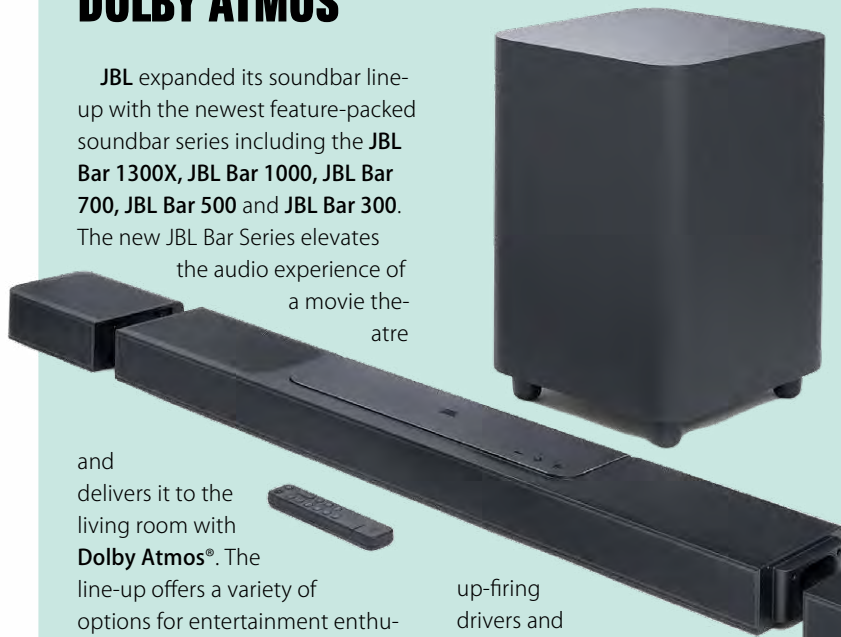


HT-A3000

JBL EXPANDS SOUNDBAR LINE-UP WITH FIVE NEW OPTIONS FEATURING 3D AND DOLBY ATMOS

JBL expanded its soundbar line-up with the newest feature-packed soundbar series including the **JBL Bar 1300X**, **JBL Bar 1000**, **JBL Bar 700**, **JBL Bar 500** and **JBL Bar 300**.

The new JBL Bar Series elevates the audio experience of a movie theatre



and delivers it to the living room with **Dolby Atmos®**. The line-up offers a variety of options for entertainment enthusiasts to choose from including the number of up-drivers, **DTS:X 3D surround sound**, detachable wireless surround speakers and subwoofers.

A true home cinema experience without wires, the 15-surround channel JBL Bar 1300X uses six

up-firing drivers and **HARMAN's** unique **MultiBeam™** technology to create an immersive audio experience leveraging its sphere of **Dolby Atmos®** and **DTS:X 3D surround sound**. With its detachable wireless surround speakers and 12" wireless subwoofer, film buffs will experience next level audio

whether watching movies, playing games or listening to music like never before. Just place the two detachable battery-powered surround speakers anywhere in the room and get swept away with crystal clear audio, free from wires or extra power connections.

"The new JBL Bar series takes in-home theatre sound to the next level and the **JBL Bar 1300X** truly stands out," said **Dave Rogers**, President, **HARMAN Lifestyle Division**. "We've packed this assortment with a record number of features, drivers and jaw-dropping acoustic performance into one versatile, easy-to-use soundbar."

Each JBL Bar features **HARMAN's** **PureVoice**. This new technology uses the company's unique algorithm to optimize voice clarity even when loud sound effects take over so movie buffs can follow even the most com-

plex plot.

Entertainment enthusiasts can also easily connect a soundbar to online music services via WiFi with compatible speakers and to browse integrated music platforms to find new songs and artists through the new **JBL One** app. With the new app's fully customizable EQ settings, users can personalize their listening experience.

With enhanced connectivity and effortless control, simply link any of the new JBL Bar range with a voice assistant-enabled device and instantly ask Alexa, Google Assistant, or Siri to stream all preferred entertainment. Each of the new soundbars also allow access to over 300 online music streaming services through **AirPlay 2**, **Alexa MRM** and **Chromecast built-in™**. Users can also enjoy favourite audio content, Internet radio, and podcasts in high definition.

APPLE INTRODUCES THE NEW HOMEPOD WITH BREAKTHROUGH SOUND AND INTELLIGENCE

Apple announced **HomePod** (2nd generation), a powerful smart speaker that delivers next-level acoustics in a gorgeous, iconic design. Packed with Apple innovations and Siri intelligence, HomePod offers advanced computational audio for a groundbreaking listening experience, including support for immersive Spatial Audio tracks. With convenient new ways to manage everyday tasks and control the smart home, users can now create smart home automations using Siri, get notified when a smoke or carbon monoxide alarm is detected in their home, and check temperature and humidity in a room — all hands-free.

"Leveraging our audio expertise



Apple HomePod delivers incredible audio quality, enhanced Siri capabilities, and a safe and secure smart home experience

and innovations, the new HomePod delivers rich, deep bass, natural mid-range, and clear, detailed highs," said **Greg Joswiak**, Apple's senior vice president of Worldwide Marketing. "With the popularity of HomePod mini, we've seen growing interest in even more powerful acoustics achievable in a larger HomePod. We're thrilled to bring the next generation of HomePod to customers around the world."

With a seamless, acoustically transparent mesh fabric and a backlit touch surface

that illuminates from edge to edge, the new HomePod boasts a beautiful design that complements any space. HomePod is available in white and midnight, a new colour made with 100 percent recycled mesh fabric, with a colour-matched woven power cable.

A custom-engineered high-excursion woofer, powerful motor that drives the diaphragm a remarkable 20mm, built-in bass-EQ mic, and beamforming array of five tweeters around the base all work together to achieve a powerful acoustic experience. With room sensing technology, HomePod recognises sound reflections from nearby surfaces to determine if it is against a wall or freestanding, and then adapts sound in real time.



To feature your Audiovisual solutions in **PALM + AV-ICN** magazine contact: **Pooja Shah** - pooja.shah@hyve.group

www.av-icnx.com/magazine/

Making The Right Noise

The Six Most Trustworthy Active Loudspeakers From 2022

When it comes to stage sound, it's not so much about what kind of audio will hit the sweet spot, but rather, how it hits the sweet spot. To get the audience tapping their feet to good music, one of the most crucial equipment musicians and DJs rely on is an active loudspeaker. A typical powered loudspeaker is not always necessarily a good one. To achieve a fine balance between blaring the music through the roof and delivering distorted audio is the job of an active loudspeaker – and only the creme de la crème in the pro audio market can do the job just right. This article covers the six most trustworthy active loudspeakers from 2022 that are still making the right noise in 2023.

Mackie Thump212 12" 1400W

The compact yet lightweight Thump212 loudspeaker from Mackie features failproof sound quality with an all-new design, Music Ducking mode, and built-in Feedback Eliminator. Stylish and sturdy in equal measure, the Thump212 12" 1400W is designed for DJs, mobile PA systems, bars, and more. With beefier drivers, a 1400W amplifier, dual TRS/XLR inputs, and a stereo 1/8" aux input, the Thump212 is easy to use without the hassle of cables and adapters.

Main Features include:

- 1400W ultra-efficient Class-D amplifier
- Built-Like-A-Tank to to conquer every gig while lightweight for easy loading
- 12" high-performance woofer
- 1" compression driver
- Feedback Eliminator
- Music Ducking
- Standard Pole Mount + Wedge Design for Floor Monitor Use

Technical Specifications:

- Power: 1400W
- LF Driver: 12"
- HF Driver: 1"
- Frequency Response: 47Hz – 23kHz
- Max SPL: 128dB



Funktion-One Evo X

A single loudspeaker solution for small live stage events, Funktion-One Evo X makes use of Funktion-One's waveguide technology to deliver higher SPL and 90-degree dispersion. The loudspeaker features an advanced driver technology, a high SPL from a compact enclosure, and a lightweight design for ease of use and greater functionality.

Main Features include:

- Single loudspeaker solution
- Wide 90° horizontal dispersion
- Full range, high SPL
- Compact and lightweight (47kg)
- Wide bandwidth Funktion-One midrange (280Hz - 5kHz)
- New isophase diffraction HF waveguide technology

Technical Specifications:

- Driver: 15"; 8", 1"
- Operating Band: 35/85Hz - 280Hz; 280Hz - 5kHz; 5kHz - 18kHz
- Sensitivity At 1m: 102dB at 2.8V; 107dB at 4V; 109dB at 4V
- Power (AES): 400W; 200W; 100W
- Nominal Impedance: 8Ω; 16Ω; 16Ω
- Usable Bandwidth (-3dB): 60Hz - 18kHz
- Weight: 47kg (103lbs) without wheelboard
- Nominal Dispersion: 90° Horizontal x 15° Vertical
- Connectors: 2 x Neutrik NL8



JBL Professional PRX915

The PRX915 comes with advanced acoustics, comprehensive DSP, incredible power performance, and complete BLE control via the JBL Pro Connect App, which makes the PRX915 an ideal solution for live events, DJs and bands, music venues, and more.

Main Features Include:

- Transducers: 915G 15" ferrite magnet woofer; JBL 2408H-2 1.5" poly-annular diaphragm compression driver
- Updated JBL image control waveguides
- Low-noise, low-distortion gain staging
- Lightweight, efficient Class D amplification
- Optimized presets
- JBL Pro Connect app
- G-Sensor Automatic Position Detect
- Polypropylene/talcum composite cabinet

Technical Specifications:

- Frequency Range (-10dB): 48 Hz - 19 kHz (4π)
- Frequency Range (-3 dB): 60 Hz - 16 kHz (4π)
- Coverage Pattern: 90° x 50°
- Transducer Impedance: Rated: Woofer: 4 Ω; Tweeter: 8 Ω
- Max SPL: 133 dB
- Power Rating: 2000W peak / 1000W RMS
- I/O: x2 Combo Inputs and x1 3.5 mm Stereo Jack; x2 XLR Through Out and x1 Mix Out
- Product Dimensions (H x W x D): 717 x 465 x 383 mm (28.2 x 18.3 x 15.1 in)
- Net Weight: 24.1 kg (53.1 lbs)



From JBL to Electro-Voice and Amate Audio to Meyer Sound, these six active loudspeakers are absolute game-changers for the touring and stage sound industry. This feature is intended only as a guide and does not endorse any product.

Electro-Voice EVERSE 8

Electro-Voice's first battery-powered, weatherized loudspeaker, the EVERSE 8 is the perfect solution for audio requirements at live venues, for musicians, DJs, and more. With high SPL and full-bandwidth coverage, lightweight, compact, weatherized design, an extended battery life, and an on-board mixer, the EVERSE 8 is designed to offer versatile sound reinforcement control options.

Main Features include:

- High-efficiency Class-D amplifier
- SST (Signal Synchronized Transducers) port design
- High-output titanium tweeter
- IP43 rated

Technical Specifications:

- Frequency response (-3 dB) 1: 60 Hz to 20 kHz
- Frequency range (-10 dB) 2: 50 Hz to 20 kHz
- Max. SPL: 121 dB
- Coverage angle (H x V): 100° x 100°
- Amplifier rating: 400 W
- LF transducer: 8 in. woofer - ferrite magnet
- HF transducer: 1 in. titanium dome, neodymium magnet, ferro-fluid cooled
- Crossover frequency: 2.5 kHz
- Connectors: 2 - XLR/TRS Combo; 1 - 3.5mm Stereo; 1 - Charge port; 1 - TRS footswitch; 1 - 12 V DC power output
- Enclosure: Polypropylene
- Grille material: Powder coated steel
- Color: Black & white
- Dimensions (H x W x D): 400 mm x 275 mm x 272 mm; 15.75 in. x 10.83 in. x 10.71 in.
- Net weight: 7.6 kg; 16.8 lb
- Power consumption: 100 - 240 V~, 50 - 60 Hz, 0.8 - 0.6 A



Amate Audio Nitid S26 2x6"

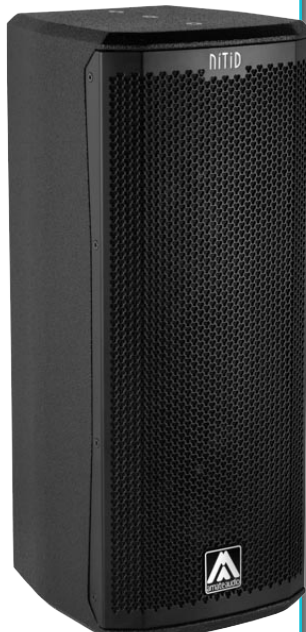
This discreet active loudspeaker system from Amate Audio comes with dual custom high-performance 6" carbon fiber drivers, sound quality of 121 dB, a continuous SPL output, and a highly compact active cabinet. Integrated with a DSP system management and 3rd generation Class-D amplifier, the Nitid S26 ensures superb audio delivery in outdoor venues.

Main features include:

- Carbon fiber cones
- Integrated power & control with multiple presets
- High resistance Polyurea® finish
- Easy rigging & installation accessories

Technical Specifications:

- Amplifier program power: 400 W (LF) + 50 W (HF) Class D bi-amplified
- Input sensitivity: 8 dBu - 1.94 V
- Input impedance: 50 KΩ Balanced
- Mains: Universal switch mode Power Supply 85-265 V / 45-65 Hz
- SPL (1m): 121 dB continuous, 124 dB peak
- Built-in DSP: 64-bit processing unit.
- Presets: FLAT / SPEECH / HPF90
- AD/DA converters: 24 bit - 48 kHz
- Standby mode consumption: 3.7 W @230VAC
- Frequency response (-10 dB): 58 Hz - 20 kHz
- LF - MF: 2x 6" neodymium woofers with carbon fiber cone (1.5" voice coil)
- HF: 1" titanium diaphragm neodymium tweeter
- Directivity (-6dB): 90° (H) x 70° (V)
- Weight: 10.4 kg
- Dimensions (HxWxD): 572 x 230 x 250 mm
- Grille: 1.5mm powder coated steel with black acoustic mesh
- Connectors: 1x XLR input / 1x XLR link / 1x AC PowerCon® input / 1x AC Power-Con® link
- Available colors: Black and white



Meyer Sound PANTHER

With an output of over 150dB in a highly compact cabinet, PANTHER Line Array Loudspeaker delivers unparalleled headroom and linearity, which makes the Line Array Loudspeaker a perfect choice for touring. Its groundbreaking Class-D amplifier makes the loudspeaker much lighter than the rest in the market, making it easy to transport, rig, and use.

Main features include:

- Available in three coverage patterns
- Analog XLR and Milan AVB inputs
- Supported by MAPP 3D, GALAXY, Compass, and Spacemap Go
- IP55-rated cabinet

Technical Specifications:

- Operating Frequency Range: 55 Hz - 16 kHz
- Maximum Sound Level2: 150.5 dB
- AES75 Maximum Linear Sound Levels3: 127.5 dBZ, 144.5 dBZpk, 125.5 dBA with an RMS input level of +8.3 dBV
- Horizontal Coverage: 80°
- Weight: 150 lbs. (68 kg)
- Enclosure: Premium multi-ply birch, slightly textured black finish
- Protective Grille: Powder-coated, stamped steel
- Rigging: End frames with captive GuideA-Links secured with 0.4375 in x 0.090 in quick-release pins that allow 0.5°- 9° splay angles; detachable side handles
- IEC Ingress Protection Rating (IP Rating): IP55, when connected to cables terminated with Neutrik TOP connectors
- Connector: Neutrik powerCON TRUE1 TOP (True Outdoor Protection)
- Operating Voltage Range: 200 - 240 V AC, 50 or 60 Hz
- Max Long-Term Continuous Power (>10 sec): 1100 W
- Burst Power (<1 sec): 2200 W



Creating State-of-the-Art AUDIOVISUAL Experiences Surrounding The Statue of Unity

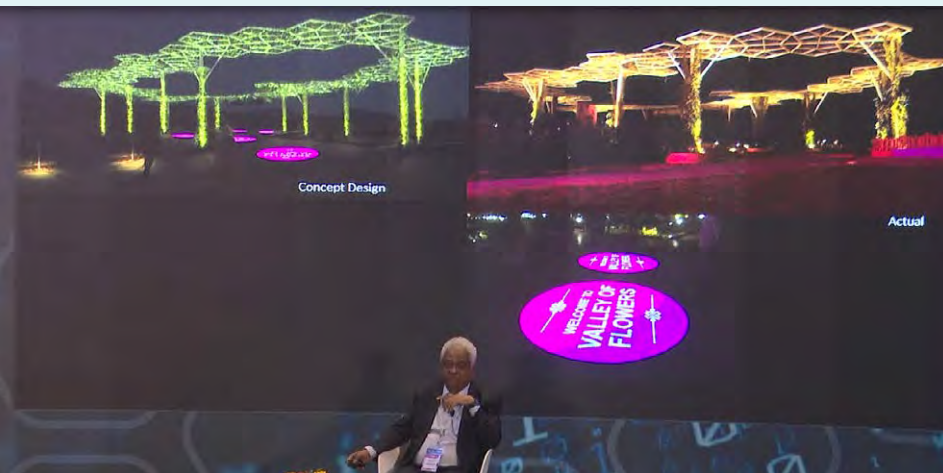
In PALM + AV-ICN's conference session titled 'AV Architect of the Year', Narendra Naidu, Chairman and MD, Rhino Engineers, talks about rendering jaw-dropping audiovisual technology for Gujarat's Statue of Unity and several other projects situated in its periphery

Transcending the Boundaries of AV Technology

Although growing at a rapid pace, the AV industry is still at a nascent stage in India. **Narendra Naidu** talks about how only a handful of people are aware of or appreciate the term 'audiovisual' in all its entirety. Naidu further expresses his optimism about the ever-increasing popularity of the AV industry while crediting **Anil Chopra**, Founder of CAVS, for founding an educational programme for



Last year, at **PALM + AV-ICN expo**, **Narendra Naidu**, Chairman and Managing Director, Rhino Engineers, one of the leading AV and media consultancy companies in Gujarat, India, was awarded the AV Architect of the Year. Mr. Naidu is a man of many talents – he renders his services as a visiting professor at SEPT and Nirma University at Ahmedabad. He has been involved with state-of-the art digital multimedia technologies for several State Governments in India and has played an integral part in the introduction of innovative technologies like 3D projection mapping, 3D hologram projection, augmented and virtual reality, RGB façade illumination, aqua screen HD projection, laser shows, light and sound shows, AV charging stations for dams, beaches, rivers, lakes, ponds, statues, and much more. He has also acted as a technical consultant and an oversight auditor for India's mega events such as Vibrant Gujarat, Global Summit, Indo-Japan Event, Textile India, Andhra Pradesh Mega Event, and the Ambaji Temple Fair. In his session titled 'AV Architect of the Year', Narendra Naidu shares insight about working on some of the biggest projects surrounding the Statue of Unity, and how the audiovisual technology plays a key role in promoting night tourism in Gujarat.

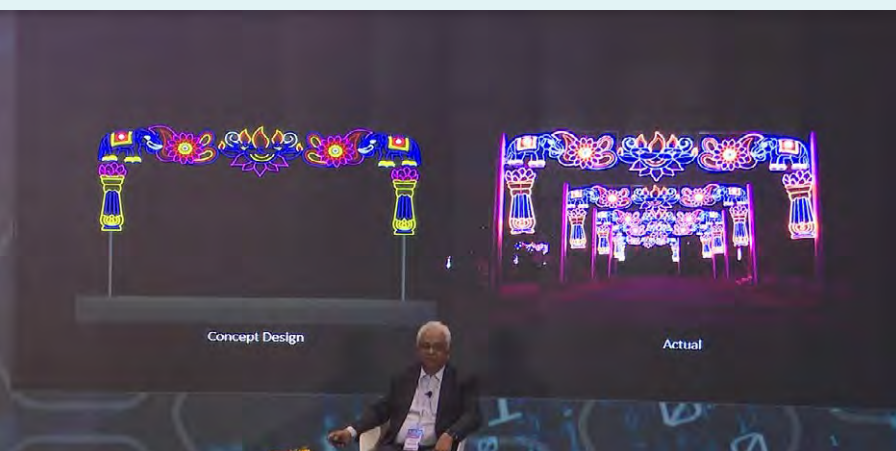


AV professionals across India. He says, "Very few people in the country know or understand the phrase 'audiovisual'. Anil Chopra is on a mission to change that by starting a new educational programme on the basics of audiovisual industry in India. I am happy to announce that I will be contributing in this mission and see to it that, sooner or later, there will one AV University in the country."

Talking about his company, the expertise he has achieved in the field of AV, and how Rhino Engineers manages to stay ahead of the competition, Naidu shares, "Rhino Engineers has been working as a project management consultancy firm since the last 25 years. We have a vast experience when it comes to creating innovative designs. We are always striving to accomplish three things in the audiovisual industry – to Make In India, to think out-of-the-box, and to create something that has never been created before. We have completed several projects in the field of 3D projection mapping, façade lighting, musical fountains, and smart classrooms. We've rendered consultancy services for the State Government, Central Government, municipal corporations, tourism sectors, temple destinations, universities, and departments such as ASI, RMD, and more."

The Beginning of an AV Revolution in Gujarat:

Recalling how Rhino Engineers was approached by the a subsidiary of the Gujarat State Government to create a slew of audiovisual experiences for visitors visiting the Statue of Unity in order to encourage them to spend the night in the vicinity and grow night tourism in Gujarat, Narendra Naidu shares the idea behind working on the biggest AV project in Gujarat, "After the inauguration of the Statue of Unity, in 2018, the client (Sardar Sarovar Narmada Nigam Limited) decided that



the monument should be a global attraction. In order to do that, the client wanted to turn the surrounding area into a likeness of Blackpool in the United Kingdom or Las Vegas in the United States of America. In essence, the client, along the Chief Minister of Gujarat and the Prime Minister of India, had the vision to turn the areas surrounding the Statue of Unity into a hotspot of night tourism – which means increasing and retaining footfall for a longer period of time. However, to translate the concept into reality was indeed a difficult task."

Naidu further adds, "Every single day while we worked on the project, we would make new presentations, show them to the authorities and the bureaucrats, acquire their feedback or revisions, and rework on the presentations. The challenges were ample because there are multiple departments with whom we had to coordinate. Plus during monsoon, we were told that we had to complete this project in three months' time. Fortunately, our OEMs and system integrators worked tirelessly to support us in our endeavour."

Talking about the results of his endeavours, Naidu shares, "Rhino Engineers worked on developing multiple tourist attraction spots in the 25 kilometres' vicinity of the Statue of Unity. Post completion, the footfall at and around the Statue of Unity has reached 25,000 per day. During the weekends, the footfall increases to 35,000 per day. On Diwali and numerous other occasions, the footfall crossed the 1,00,000 mark each day. Today, the Statue of Unity and the area surrounding the attraction has garnered such popularity that it is difficult to get the tickets to these attractions unless one looks for the tickets online."

Bringing Tourist Attractions To Life With AV Technology:

Rhino Engineers was tasked with introducing innovative AV technology at 24 sites surrounding the Statue of Unity. Narendra Naidu affirms, "Till now, we have worked on 24 projects around the Statue of Unity, out of which 8 projects are yet to be inaugurated. We have created more than 30 attractions with the use of state-of-the-art audiovisual technology – including India's biggest AV composite system,

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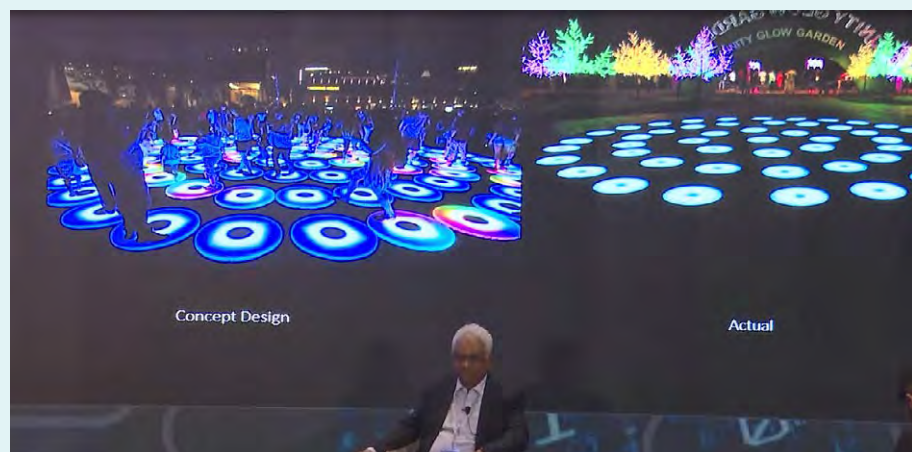
Almost one billion light bulbs have been installed in the Narmada Dam lighting, all of which work on an automated LED system. The lighting installation undertaken by us spanned 10 km long. So, we introduced gantries and 10 km-long strip lights.

The dam lighting itself was a humungous task, considering the project measured 1.3 km wide and 130 km long, and it took us 17 days to complete the project with a light and sound show.

Narmada Dam lighting, augmented reality within the jungle safari, India's first Glow Garden – you get the gist."

Narendra Naidu shares how Rhino Engineers installed AV equipment at the massive Narmada Dam, "Almost one billion light bulbs have been installed in the Narmada Dam lighting, all of which work on an automated LED system. The lighting installation undertaken by us spanned 10 kilometres long. So, we introduced gantries and 10-kilometre-long strip lights. The dam lighting itself was a humungous task, considering the project measured 1.3 kilometre wide and 130 kilometre long, and it took us 17 days to complete the project with a light and sound show. If anyone in the world thinks that a dam is made to reserve water and distribute it to the surrounding area, they will be proven wrong – because we thought out-of-the-box and converted such a massive surface into a successful light and sound show."

But this is not the end. Addressing several AV projects undertaken by Rhino Engineers, Narendra Naidu talks about how several tourist attractions in the vicinity of the Statue of Unity were brought to life with the help of unique audiovisual technologies, techniques, and equipment: "We have worked on the 'Kamalam', an audiovisual orientation centre, which is based on the origins of the Dragon Fruit. We have also worked on the Maze Garden, a structure that spans 3.5 kilometres. Within the Maze Garden, we have installed LED projections and floor projection to enhance the visitor's experience. Similarly, we have also designed the Miyawaki



Forest, where, within a small one or two acres of land, stands a forest. We aim to educate the visitors on how to develop a forest on such a small size of land via audiovisual technology. Another project we contributed to is the Children Nutrition Park, where we have used every possible piece of technology – AR, VR, hologram, 3D projection mapping, floor projection, 5G projection, and many more to create an interactive, immersive experience."

Naidu concludes by talking about a novel concept that Rhino Engineers introduced while enlivening the Valley of Flowers and the Unity Glow Garden with light and sound, "When one enters the Valley of Flowers, which is another audiovisual project surrounding the Statue of Unity, he/she will encounter a 3.5-kilometre-long double sign neon flags' lighting design, a concept that is already popular in Singapore and London, but in India, we have introduced this for the first time, and that too, on a permanent basis. There's also India's first Unity Glow Garden, where everything within – the fountains, the trees, the fruits, the flowers – all of it, made of glowing structures. We also worked on self-illuminated digital signages, which are some of the largest digital signages in India."

HOW COMMUNICATION AND COLLABORATION ARE CHANGING IN THE HYBRID WORKPLACE

by **Monica Sun**, Director of the Presentation Group, ViewSonic



Meeting the Challenges of Hybrid Work Head On

The nature of work has fundamentally changed, and it's going hybrid: in fact, Gartner predicts that 40% of organizations will soon offer a blend of virtual and physical work experiences. The hybrid workplace has been a leading discussion across organizations after workplaces went back to in-person work, as many workers now expect a hybrid working environment. To meet the demand of this trend, many meeting spaces have recently had greater audio, video, and presentation sharing capabilities integrated so that employees could have similar experiences as remote work when they are in an office meeting room.

When it comes to hybrid meeting rooms, it's not just the audiovisual devices themselves that make or break the room. Aspects such as flexibility, productivity, communication, and collaboration are crucial when setting up the meeting room. Wireless presentation solutions, for example, help teams develop, interact, and connect wirelessly.

Defining Spaces for Optimized Integration

The ideal setup for hybrid meetings depends on the number of participants and the meeting room's purpose. This means that as early as the planning stage, organizations need to know exactly the purpose, expected scenarios, and budget of the room. ViewSonic provides a range of interactive displays to facilitate collaboration in both small and big meeting rooms.

For smaller meeting spaces that accommodate fewer than six people, one

display would be sufficient for both presentation and collaboration, for example. For presentation-focused meetings, a non-touch presentation display would be suitable, whereas a touch-enabled ViewBoard would be suggested for collaboration meetings.

In medium-sized meeting spaces for six to twelve people, two displays would be suggested for both presentation-focused and collaborative meetings. A ViewBoard interactive display can foster production collaboration, and a presentation display works for presentations and communication.

For larger meeting rooms accommodating more than twelve people, to ensure the best visibility, one or two displays would be suggested. For content presentation purposes, a presentation display or Direct View LED Display would be the most effective, along with a digital podium equipped with a Pen Display for touch-enhanced presentation possibilities.

Taking Videoconferencing to the Next Level

The ViewBoard 62 Series is the overall ideal solution for hybrid meeting rooms as it provides both corporate and higher education organizations with a suite of advanced technologies for improved

productivity and communications when conducting video meetings. Traditionally, video conferencing setups in meeting rooms have relied on cameras that capture the whole room. However, the ViewBoard 62 Series incorporates auto-framing and voice tracking in the All-in-one conference camera to ensure that whoever is speaking can be seen. With this functionality in place, attendees no longer need to raise their hands or stand to get everyone's attention.

Using myViewBoard Display, without prior installation of any software, participants can share their desktop to their wirelessly displayed presentations by accessing a browser and syncing to the display's ID and one-time password. In this way, sharing is simple and that leads to new opportunities in productivity.

Why Audio Matters in Meeting Collaboration

ViewSonic's solutions are more than just visual as well — we're also committed to offering groundbreaking audio quality that enhances meeting and collaboration experiences. The ViewBoard 52 Series was created as our latest collaboration with Harman Kardon, for example.

When holding meetings in a larger

conference room, sound reception may decrease with the size of the space. ViewSonic's wireless Conference Speakerphone has a 360-degree sound coverage of up to six meters to facilitate communication, meaning remote conversations can take place as if they were in-person ones.

Consistent Upkeep, Training Pays Off

After setting up a hybrid meeting space, it's important to consistently maintain the space. This means updates to the devices and frequent maintenance are needed to ensure the smooth operation of the hybrid equipment. In the meantime, to foster a productive collaborative environment, employee training is essential.

They should be trained on updated meeting room technology so that they can fully take advantage of this technology.

Flexibility and Communication Play A Key Role Moving Forward

With the right communication and collaboration solutions in place, organizations and employees can optimize their in-person workplaces to meet the challenges of hybrid work. Whether working in-person in small-to-large-sized meeting spaces, or collaborating remotely, ViewSonic offers organizations and employees a diverse range of solutions for meeting spaces with the flexibility and enabling of productivity they need to help them join the future of work and a better normal.



AV-ICN

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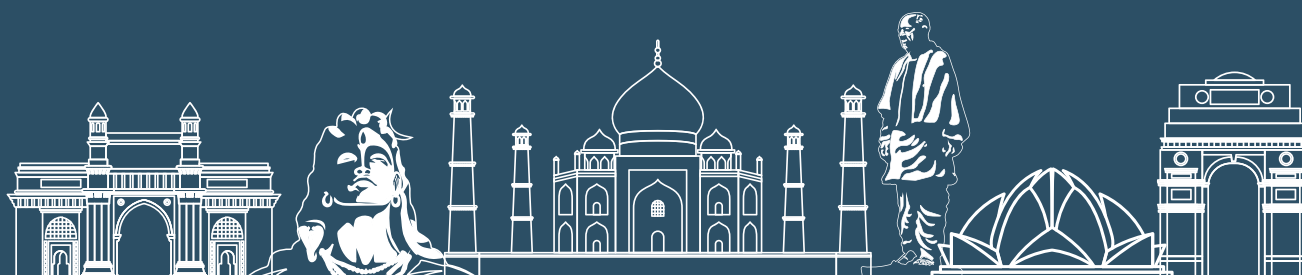
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Switch To A Single Source

Six Established Matrix Switchers to invest in 2023

Matrix switchers – the term derives from the fact that the amount of audio and video inputs against the amount of audio and video outputs forms a complex matrix, and the switchers help route the audio and video inputs into a single (or multiple) audio and video outputs at any given point in time. Basically, matrix switchers help crystallize the art of coherence in the audiovisual world.

Orei 2x2 HDMI Matrix W/Audio Out

An impressive amplifier-powered matrix, the Orei 2x2 HDMI Matrix W/ Audio Out allows users to achieve a seamless audio or video transmission via duplicating 2 HDMI signal up to 8K resolution. Compact, sturdy, and easily operatable, this matrix switcher offers best use-case in B2B spaces such as trade shows, conference venues, and large lecture halls.

Main Features include:

- Split two HDMI 2.1 input signal to two HDMI output signals identical to the input signal (Both output will have to support 8K)
- 8K 40 Gbps Powered HDMI Splitter
- Input: 2x HDMI & Outputs: 2x HDMI 1x Optical 1x L/R Analog
- EDID management
- Built-in Equalizer, Retiming and Driver
- 2 in 2 out HDMI Matrix
- Supported resolution: up to 8K, 4K/120Hz, 1080p, 720p, HDR, HDR10, HDR10+ Dolby Vision, HLG Pass Through
- Supports HDMI Audio Formats
- HDCP 2.3 Compliant
- Includes 100-240 50/60 Hz auto switching power supply
- Lifetime OREI Tech Support & 12-Month Manufacturer's Warranty

Technical Specifications:

- Inputs: 2 × HDMI Type A (19-pin female)
- Output Ports: 2 × HDMI Type A (19-pin female)
- Video Bandwidth: 40 Gbps
- Video Resolution: Up to 8K@60Hz YCBCR 4:2:0 10bit, 8K30 RGB/YCBCR 4:4:4 10bit or 4K120 RGB/YCBCR 4:4:4 10bit
- HDMI Audio Formats: LPCM, Dolby Digital/Plus/EX, Dolby True HD, DTS, DTS-EX, DTS-96/24, DTS High Res, DTS-HD Master Audio, DSD
- HDMI Compliance: HDMI 2.1
- Power Supply: Input: AC100 - 240V 50/60Hz, Output: DC 5V/1A (US/EU standards, CE/FCC/UL certified)
- Power Consumption: 2.25W (Max)
- Weight: 258 g



Key Digital KD – MLV4X4Pro

A classic matrix switcher, the Key Digital KD-MLV4X4Pro is a seamless 4K-enabled UHD HDMI matrix switcher that features multi-view tiling, independent audio matrix and AV routing, and mirrored outputs.

Main Features include:

- Multi-view Tiling Processor: Simultaneously watch multiple sources on a single screen
- Seamless Switching: Un-interrupted screen transitions during source selection while in full-screen mode
- Built-In UHD@TP Tx with PoC: 4 included KD-EXMLVRx units are powered by KD-MLV4x4Pro
- Mirrored Outputs: Simultaneously active HDMI + UHD@TP connections per output show same AV signal at same time for a total of 8 possible displays connected
- Independent Audio Matrix: Audio output ports may be routed separately from HDMI & UHD@TP ports.
- Video Resolution: Up to 3840 x 2160p 4:2:0 at 60fps supported on inputs & 3840 x 2160p 4:4:4 at 30fps supported on outputs.

Technical Specifications:

- Input (Each): 1 HDMI Connector, Type A, 19 Pin Female
- Output (Each): 1 HDMI Connector, Type A, 19 Pin Female
- Output (Each): Balanced/unbalanced line level audio on 6-pin terminal block. Drives 2VRMS line audio input with a sampling rate of 192KHz
- Output (each): Toslink optical digital audio following SPDIF format (IEC 60958). Supports sampling rate up to 192KHz
- Video Bandwidth: TMDS bandwidth 10.2 Gbps
- HDMI Video/Audio Signal: Input Video Signal - 1.2 Volts p-p
- Analog Audio Max Output Level: 4dBu on 150kΩ, DC coupling
- Audio Bandwidth: 20Hz to 20kHz @ 0dBu
- TND + Noise: 0.33% @0dBu @ 1kHz
- Optical Max Output Level: 1Vpp on 75Ω, DC coupling
- Power: 12V/5A (60W) AC Power Supply with Grounded, 2.1mm ID DC Power Jack with Screw In Type
- Product Weight: 8.02 lb / 3.64 kg



Tobo 4K HDMI 4x2 Matrix Switch

The Tobo 4K HDMI 4x2 Matrix Switch supports a maximum resolution of upto 4096x2160/30Hz. Not just that, the 2-in-1 switcher and splitter also features support for ARC function, 3D video format, and HDMI1.4b version, making it an ideal choice for anyone looking for a robust matrix switcher.

Main Features Include:

- Support HDMI1.4b version
- Support ARC function
- Support 3D video format
- Support maximum resolution of up to 4096*2160/30Hz
- The TMDS clock is 320Mhz at the maximum rate of 3.2G
- Support 8/10/12 bit deep color
- When the resolution is 1080P or less, the standard AWG26 cable is supported. The input transmission distance is 15 meters, and the output transmission distance is 25 meters
- When the resolution is 4K, the standard AWG26 cable is supported. The input distance is 12 meters and the output transmission distance is 15 meters
- Supports 3.5 mm stereo audio interface output and fiber output
- Supports switching or distributing 4-way HDMI input into 2 way HDMI output
- Support 5.1 channels
- Support 5V-12V wide voltage input

Technical Specifications:

- HDMI version: HDMI 1.4b
- HDMI resolution: 4096*2160/30Hz
- Support audio format: DTS-HD/Dolby-trueHD/LPCM7.1/DTS/Dolby-AC3/DSD
- Max bandwidth: 320MHz
- HDMI input port: 4
- HDMI output port: 2
- Max working current: 1000mA
- Operating Temperature range: (-15 to +55°C)
- Dimension: approx.180×71.3×21(mm)/7.08×2.8×0.82"
- Weight: approx.320g



*From Hall Technologies to Lightware, here are the six latest matrix switchers.
This feature is intended only as a guide and does not endorse any product.*

Lightware MMX8x8-HT440

Lightware's Matrix Switcher is designed specifically for conference spaces. With four HDMI and four TPS2 inputs and outputs, 4K, 3D, and HDCP compatibility, this matrix switcher is the right choice when it comes to cost effective conference room installations. But this matrix switcher's features don't just end here.

Main Features include:

- Extends DVI or HDMI 1.4 + Ethernet + RS-232 + IR over one CAT5/6/7 cable
- Built-in PoE injector* for remote powering extenders
- Balanced analog audio output for audio de-embedding
- Command injection on RS-232 and IR ports
- Built-in Event Manager control automation feature.

Technical Specifications:

- 4K / UHD (30Hz RGB 4:4:4 60Hz YCbCr 4:2:0) and 3D capabilities
- Four HDMI input ports
- Four TPS2 (HDBaseT) input ports
- Four HDMI output ports
- Four TPS (HDBaseT) output ports
- Up to 170 m transmission over TPS Long Reach Mode for Full HD signals
- Eight balanced bi-directional analog audio ports
- Ethernet port for device control
- Two ethernet ports for external device control
- Two bi-directional RS-232 ports
- Two serial/IR ports for display control
- Four IR ports for display control
- Four relay output ports
- Six GPIO port + 5V + GND
- PoE function to feed remote power to connected devices
- Front panel LCD and jog dial button
- Event Manager built-in control feature
- Power consumption (max): 122W

Aten VP3520 5x2 True 4K

Ideal for use in meeting rooms, training rooms, and classrooms, the 4K enabled presentation matrix switch from Aten also features HDR technology that delivers seamless, crystal-clear images. With all the features required to deliver a truly professional presentations – such as multiple control options, flexible audio de-embedding capability, and the ability to connect with multiple AV devices – the Aten VP3520 is an engineering marvel of its kind.

Main features include:

- Superior video quality – True 4K resolutions up to 4096 x 2160 @ 60 Hz (4:4:4) (HDMI) / 4096 x 2160 @ 60 Hz (4:2:0) (HDBaseT)
- 4K Scaler – features a 4K video scaler to convert input resolutions to the optimum display resolutions
- Auto display on / off control – supports display control through CEC, IR, RS-232, PLink and controls projector screen through relay port
- Audio amplifier – 2 x 10 W built-in power amplifier with speaker outputs on terminal block connectors

Technical Specifications:

- Interfaces: 3 x HDMI Type A female (Black); 2 x HDBaseT (RJ-45) Female (Silver) with PoH
- Max. Distance: HDMI: 4K@60Hz (4:4:4) at 5m; 4K@30Hz at 10m; 1080p@60Hz at 15m; HDBaseT: 4K@30Hz at 35m (Cat 5e/6) / 40m (Cat 6a/ATEN 2L-2910 Cat6); 1080p@60Hz at 60m (Cat 5e/6) / 70m (Cat 6a/ATEN 2L-2910 Cat6)
- Max. Resolution: HDMI: Up to 4096 x 2160 / 3840 x 2160 @ 60Hz (4:4:4); HDBaseT: Up to 4096 x 2160 / 3840 x 2160 @ 60Hz (4:2:0) ; Up to 4096 x 2160 / 3840 x 2160 @ 30Hz (4:4:4)
- IR: 1 x Mini Stereo Jack Female (Black); VP device control; 1 x Captive Screw Connector, 2-pole; AV device control
- Ethernet: 1 x RJ-45 Female (Silver); Support PLink protocol
- Operating Temperature: 0-40°C
- Storage Temperature: -20 - 60°C
- Humidity: 0 - 80% RH, Non-Condensing
- Housing: Metal
- Weight: 3.80 kg (8.37 lb)
- Dimensions (L x W x H): 43.24 x 27.23 x 4.40 cm; (17.02 x 10.72 x 1.73 in.)

Hall Technologies HSM-44-UHD

Superlative quality, ease of use, and multiple control options make Hall Technologies' HSM-44 - UHD 4x4 Matrix Video Switcher the last, but not the least, entry in this list. Ideal for settings such as conference rooms, houses of worship, multimedia presentation spaces, and more, this matrix video switcher supports upto 4K HDMI resolutions along with Dolby, DTS, as well as HD audio standards.

Main features include:

- HDMI 2.0 version (Support 4K@60Hz YUV4:4:4)
- Bandwidth up to 18Gbps
- HDCP2.2 input, HDCP2.2 output
- HDCP1.4 input, HDCP1.4 output
- Support HDR10
- 4xHDMI Input, 4xHDMI output
- Analog and Digital Audio extraction
- Any one of the 4 Ultra HD sources to any one of the 4 Ultra HD displays
- Support Panel Button, Local IR, RS232 Control with command, IP Control, Web GUI Control
- Support Dolby True HD and DTS-HD master audio, Dolby Atmos under copy EDID mode
- Support firmware updating through USB port

Technical Specifications:

- Video Input Ports: (4) HDMI 2.0
- Video Output Ports: (4) HDMI 2.0
- HDCP: HDCP 2.2 and HDCP 1.4
- HD Resolutions: Up to 4K60 (4:4:4)
- Audio Output Ports: (4) TOSLINK (S/PDIF digital supports all formats listed below)
- (4) 3.5 mm (Analog Stereo, L/R, supports only 2-channel formats)
- 16/20/24 bits per sample and up to 96 KHz Sampling Rate
- Control: Front Panel / Telnet / RS-232/ IR / WebGUI
- Power Supply: External 5V 4A
- Power Consumption: Max 12.5 W /Min 4 W
- Color: Black
- 10%~90%, non-condensing
- Dimensions: Device (including protrusions): 8.50" (216 mm) W x 5.00" (127 mm) D x 1.75" (45 mm) H
- Weight: Device: 2.05 lbs. (0.93 kg)
- MTBF: 90,000 hours



RELOOP LAUNCHES RMX-95 – A 4-CHANNEL DIGITAL CLUB MIXER

Reloop released the **RMX-95**, a 4+1 channel digital club mixer. The professional RMX-95 4+1 channel club mixer blurs the lines between analogue workflow and digital technology. The RMX-95 features dual-USB 2.0 interface, redesigned effects section, optional MIDI mapping of all controls and smooth integration of the djay PRO AI DJ software. The club mixer has a familiar and user-friendly interface, making it suitable for both professional and hobby DJs.

The RMX-95 also offers better connectivity, since four CD, two line, and two phono inputs are available on the four input chan-

nels. The separate microphone channel has two microphone connections (1 x



jack, 1 x jack/XLR combination jack) and an additional AUX input. The master output offers RCA or balanced XLR cable connections. The booth output has two jack connections for stereo operation. However, it can also be used in mono mode. A recording device can be connected to the Rec output via RCA jacks to record DJ sets – regardless of the master output level.

Last but not least, the DJ mixer has two jacks for headphones.

24-bit sound quality is provided by the ten inputs and outputs of the high-quality dual-USB 2.0 interface. The two USB ports allow smooth transitions between DJs and maximum flexi-

bility when using different setups in a single club night. In addition, the active USB hub enables the connection of additional USB devices.

The RMX-95's digital architecture transforms the DJ mixer into an individually mappable MIDI controller. As part of this, the setup menu provides several customizable options, such as EQ frequency range, Neural Mix™ EQ mode, audio interface routing, and zone routing for the booth output.

The club mixer's sleek black metal surface is not only eye-catching but also highly durable. The solid metal housing and hard-wearing metal shafts in all of the built-in potentiometers and switches provide a long service life, even with heavy club use.

NUMARK LAUNCHES MIXSTREAM PRO + - A STANDALONE CONTROLLER WITH AMAZON MUSIC UNLIMITED STREAMING

Numark launched a new addition to the Mixstream Pro family: the **Mixstream Pro+**. The new standalone controller is compatible with Serato DJ Pro, Serato DJ Lite, and Virtual DJ software and offers streaming access to Amazon Music Unlimited.

The Mixstream Pro + integrates with Amazon Music Unlimited and other popular streaming services, giving the user instant access to over 100 million CD quality (aka "lossless") songs across all musical genres. The built-in Wi-Fi and lightning-fast onboard song analysis lets the user practice and perform for hours on end without owning or preparing any music ahead of time. Tracks are analyzed for bpm and key as they are loaded and buffered into the internal memory, ensuring uninterrupted playback at every party, gig, or livestream.

Immersive Built-In Speakers

The Mixstream Pro + features high-quality built-in speaker monitors with dedicated volume control. For professional DJs, the built-in

speakers are the ultimate, convenient solution for practicing, livestreaming, video content creation, and personal monitoring when connected to a larger sound system.

Advanced Lighting Integration And Control

For advanced lighting options and features, professional DJs can pre-analyze their music library with SoundSwitch desktop software, export their library to a USB drive, SD card, or to their

Dropbox cloud, and have full control of DMX lighting using the touchscreen of the Mixstream Pro +. This functionality makes it simple to provide a professional lighting experience at events and gigs without the need to bring along a laptop or DMX controller.

Enjoy The Freedom Of Laptop-Free Performances

The Mixstream Pro + features 2 USB inputs and 1 SD card slot for external media drives for optimum versatility

when it comes to music selection and library curation. Quickly prep playlists from Serato, rekordbox, and iTunes using the Engine DJ desktop software, export to a USB drive or SD card, insert the drive in the Mixstream Pro +, and perform the entire show without the need for a laptop or computer.

Multiple DJ Performance Options

In addition to being able to DJ in Standalone Mode with Engine DJ OS, the Mixstream Pro +'s Computer Mode allows the user to use the device as a DJ software controller for Serato DJ and Virtual DJ (Serato DJ Lite is supported for free, a paid license is required for Serato DJ Pro and Virtual DJ). When in Computer Mode, the Mixstream Pro +'s touch screen offers hands-on control over library navigation, song selection, FX control, and more. This flexibility gives the user the option to choose how he/she would like to perform at the next show.



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contact: **Pooja Shah** - pooja.shah@hyve.group

11 QUESTIONS WITH Manuel Peris

CEO – DAS Audio Group SL

*With more than 20 years of experience at DAS Audio, first as Controller and Founder of DAS Audio America, and then as Financial Director and CEO since 2013, **Manuel Peris** has nurtured DAS Audio to bring it to the trailblazing position it occupies today. In an exclusive interview with **PALM + AV-ICN**, Manuel Peris shares his insight on running a family-owned business, the Indian pro audio trajectory for DAS Audio, his plans to penetrate the pro audio market in India, and more.*



Tell us about your journey in the pro audio industry? What have been some of the highs and lows?

I'm excited to share our journey in the pro audio industry. We've been driven by a passion for sound and a commitment to creating true value for our customers.

One of the highs of our journey was the launch of our line arrays, which was a huge accomplishment for us and helped establish us as a major player in the pro audio industry. Also, the international expansion was a key point for us, it allowed us to reach new customers and to keep growing.

Of course, there have been lows as well. The industry is extremely competitive, and we've had to work hard to stay ahead of the curve.

Overall, I am proud of what we've achieved at DAS Audio and I am excited about the future. We are constantly pushing boundaries and looking for new and innovative ways to improve our products and services, and we will keep doing so.

As an independent family-owned business, DAS Audio company culture, we would assume was forged in the early stages itself. What according to you are the greatest learnings and advantages of being in a family-owned business?

One of the greatest advantages of being a family-owned business is the ability to take a long-term perspective on business decisions. This allows us to focus on sustainability and stability, rather than short-term gains. Additionally, the close relationships between management and employees lead to more effective communication and decision-making.

Another advantage is the strong sense of personal responsibility and ownership. This results in a dedicated and loyal workforce,

as employees tend to feel more connected to a family-owned company.

Overall, our company culture is built on a foundation of close relationships with our customers, employees, and suppliers. It has allowed DAS Audio to create a strong company culture based on trust and mutual respect.

Are there any concrete changes in how the company is run today?

I can say that the company has adapted to the changing demands of the industry. Today's pro audio market is more competitive and technology-driven than ever before, and we have had to adapt to stay ahead.

One of the biggest changes in how the company is run today is the focus on customer service. We have invested resources to provide our customers with the best possible experience. Additionally, we have a variety of profiles within our engineering department, now with software experts, to keep us at the forefront of technology. We have implemented new technologies such as DSP technologies, FIR filter processing and remote control and

“The EVENT Series, our best-selling product line, is a complete solution for live events of all sizes. The DAScontrol technology allows for easy setup and configuration, ensuring optimal sound quality every time.”

monitoring to take our systems to the highest levels of performance and provide the best sound quality and reliability possible.

What according to you are the main milestones in terms of product development in the five-decade history of DAS Audio?

I am proud to say that we have achieved several milestones in our five-decade history in the pro-audio industry. One of our most significant achievements was being the first manufacturer of professional sound systems to use Class D amplifiers, providing our customers with energy-efficient products 20 years ago. Another major milestone was being the first European company to manufacture self-powered speakers. We also take great pride in our in-house manufacturing process, where we produce everything from transducers, wood cabinets, and electronic components in Spain. This is a noteworthy achievement as it sets us apart from the competition and aligns with our company culture of producing everything in-house.

The EVENT series is the embodiment of all our milestones. It is easy to use, self-powered, and efficient. It is a testament to our commitment to constant improvement and providing the best solutions to our customers.

Less than a year ago, DAS Audio revealed its LARA line array system. Can you

elaborate a little on this system. How is it different from other Line Array systems and what benefits does it bring to the live events market?

The LARA line array system is DAS Audio's flagship product, it represents the future of the company. With advanced DSP processing capabilities and self-powered technology, it delivers exceptional sound quality and coverage, while also ensuring increased reliability through continuous voltage and current monitoring.

The cardioid design offers several advantages such as reduction of sound reflections and reverberations, sound pressure level reduction on stage, reduction of sound pressure level on the back of the room, improved intelligibility of speech, and improved performance and coverage.

Is it available in India and what has the response been like to this system since it was launched?

LARA, our flagship product, is not currently available in the Indian market, but we have plans to introduce it in 2023. We have seen a high demand for this system since its launch and have focused on making it available to markets where we have a strong customer base, such as Europe and North America. We understand that the Indian market is growing fast, and we are eager to share our state-of-the-art technology with Indian customers. However, launching LARA in India requires a significant investment in customer service and training, as our customers must become experts in using the ALMA software that controls and manages the LARA system.

What is your perception of the global market for pro-audio products and how does India fit into this global scenario?

I believe that the global market for professional audio products is continuously growing, with an increasing demand for high-quality sound systems in various segments of the industry.

In terms of India, it is a vast and diverse market with a growing middle class and increasing disposable income, which presents a good opportunity for the pro-audio industry. We see India as a key market with great growth potential and we are working on strategies to access the market and to adapt to it. We are confident that our products and solutions will be well received by the Indian market, and we are excited about the opportunities that lie ahead.

Which unique pro audio product are you currently pushing strongly into the Indian market?

As the Indian pro audio market continues to grow, we at DAS Audio have been closely monitoring the industry trends and identifying areas of opportunity. One area where we have already seen success and have

“ As the Indian pro audio market continues to grow, we at DAS Audio have been closely monitoring the industry trends and identifying areas of opportunity. One area where we have already seen success and have established a strong presence in the live event industry...The DAScontrol technology allows for easy setup and configuration, ensuring optimal sound quality every time... Additionally, its great value-price ratio aligns with the current market conditions in India, making it the ideal product for us to focus on in the Indian market.

established a strong presence in the live event industry.

The EVENT Series, our best-selling product line, is a complete solution for live events of all sizes. The DAScontrol technology allows for easy setup and configuration, ensuring optimal sound quality every time. The robust and durable construction combined with the different sizes available in the series make it a versatile option for a variety of event types. Additionally, its great value-price ratio aligns with the current market conditions in India, making it an ideal product for us to focus on in the Indian market.

In India, in which industry segment (fixed install, rental, touring etc.) do you see most potential and what is the strategy you are adopting to penetrate this market?

The increasing demand for high-quality sound systems in commercial and public spaces, such as hotels, malls, and transportation hubs, presents a significant opportunity for our company.

The Integral Series includes a range of devices such as amplifiers, processors, and controllers, that are all interconnected and work seamlessly together to provide optimal sound quality and ease of use. Additionally, it is designed to integrate with other DAS

Audio products such as the Quantum and WR Series, making it a versatile and comprehensive solution for the Indian installation market. We believe that the growing demand for professional sound solutions in India, paired with the capabilities and features of the Integral Series, positions us well to capitalize on this market opportunity.

As a company, we have an established presence in the touring segment, thanks to our popular Event Series and we will continue to monitor the Indian market and adapt our strategy to best serve our customers and stay ahead of the industry trends.

According to you, how developed is the Indian distribution for pro-audio per se and what kind of challenges are you facing (if any)?

I believe that the Indian distribution for pro-audio products is still developing, but it has been growing in recent years. There are some established brands in the country, but there is still room for growth and expansion.

One of the biggest challenges we face in the Indian market is creating awareness and understanding of our brand and products. India is a diverse market with different regions having different cultures and languages, it requires a strong and dedicated marketing strategy to reach out to the right audience. Additionally, there can be challenges in terms of logistics and infrastructure, which can make it more difficult to distribute our products across the country.

Another challenge is competing with established brands and products in the market, it is important to differentiate ourselves and to show the value that our products and solutions bring to the industry.

We are committed to overcoming these challenges and we believe that with the right approach and dedication, we will be able to establish a strong presence in the Indian market.

What are your long-term and short-term goals for DAS Audio as a company?

I am proud to say that our company's long-term mission remains the same since we started, with our family-owned business model, we take a long-term approach to growth and are dedicated to providing value at every step of the way. Our final goal is to be recognized as a leading provider of professional sound solutions. We strive to be synonymous with reliability, high-tech innovation, and profitability for our partners and end customers alike. From manufacturing to training and support, we are committed to helping our partners and end customers succeed.

Our short-term goal is to continue to expand our manufacturing capacity to meet the growing demand for our products, while also investing in training and support to ensure that our partners and end customers can fully utilize and benefit from our solutions. Our focus on providing value is what sets us apart in the industry and we are confident that it will lead to our continued success.

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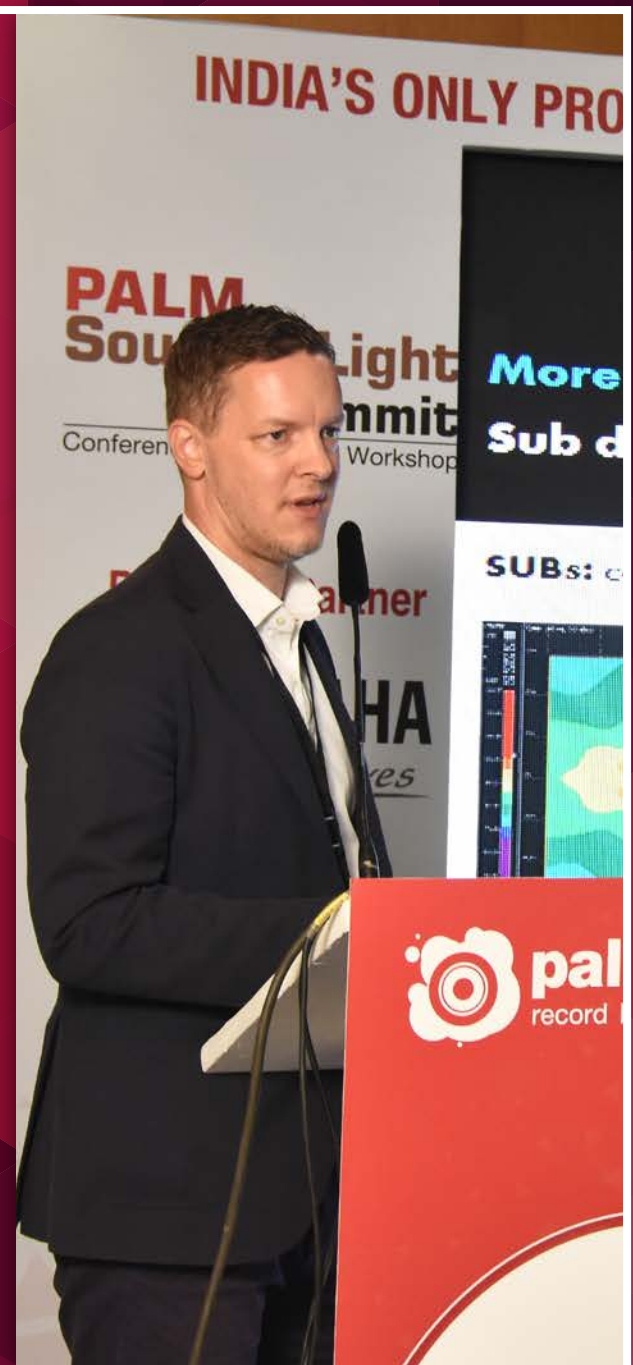
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L-ACOUSTICS INTRODUCES NEW GLOBAL BUSINESS DEVELOPMENT TEAM

Following the recent announcement of a new Global Sales and Business Development organization, **L-Acoustics** introduced the new Business Development team. Consisting of talented experts within the company, alongside recent appointments of renowned industry leaders, the Business Development team will drive the L-Acoustics vision and strategy within key vertical markets while providing expertise and deep support to consultants, partners, and end users around the globe.

The new L-Acoustics sales organization is focused on sales strategy, business development,

and building territorial sales channels. Under the general management of L-Acoustics CEO **Laurent Vaissié**, the new team is spread across three divisions: Sales and Sales Operations focusing on developing regional sales channels; Business Development concentrating on developing commercial expertise and end-user outreach in key vertical markets; and Strategy Leadership developing mid- to long-term go-to-markets strategies and key partnerships as well as managing resource planning and market intelligence. To offer a complete commercial and technical solution to end users and influencers, the Business Development team structure mirrors that of the Proj-

ect Application Vertical Market team led by **David Dohrmann**.

The Business Development team will focus on setting strategies and roadmaps in five key vertical markets. L-Acoustics veteran **William Cornell** takes the role of Director, Musicals & Theater, while **Scott Wakelin** has been promoted to Director, Hospitality. **Paul Keating** will assume a double role as Managing Director L-Acoustics Creations EMEA and Director of the Architectural vertical. In this new role, Keating will manage distribution, logistics, and application support for residential, marine, and architectural markets in all direct markets worldwide outside the Americas while building relationships with clients, decision-makers, and private owners in this strategic vertical market.

To round out the Business Development team, L-Acoustics has appointed two new key roles. **Olivier Roure** joins the company as Business Development Director, Sports Facilities. Roure will bring a global approach to the sports facilities vertical, expanding its share within the market. Roure has built a career of over two decades in the pro audio industry at leading companies like JBL Professional (a Harman Professional Company), QSC LLC, and as an independent consultant. His extensive knowledge of the North American Sports market will be a key asset in globalizing the approach to this critical

market.

Industry luminary **Tim Boot** joins L-Acoustics as Business Development Director, Acoustics Solutions. Focused on developing the Ambiance Acoustics System, Boot will develop the strategy for this growing new vertical market, identify and build key relationships, define market segmentation, and support growth strategies. He will also contribute to product development and improvement via market and competitive analysis. Boot has over 30 years of experience in the industry, including audio production, acoustics, design, and manufacturing. He's a seasoned business leader, most recently with Meyer Sound.

"This new organization will deepen our expertise in key vertical markets, strengthen our network presence globally, and allow us to plan a multi-year business roadmap that addresses both our current product offering and future innovations in loudspeakers, software, electronics, and services," concludes Vaissié. "With this team of outstanding professionals—who have proven their expertise within our team and throughout the industry—L-Acoustics will continue to elevate the listening experience for live entertainment and beyond."



Sales Meeting 2022, at Chateauform' Palais des Congres Paris Saclay, Massy France. From left to right: Scott Wakelin, Tim Boot, William Cornell, and Olivier Roure

KV2 AUDIO APPOINTS ROBERT ADRIAN TAN AS DIRECTOR OF SALES, ASIA

KV2 Audio appointed seasoned industry professional, **Robert Adrian Tan**, to the post of Director of Sales, Asia. Based in Singapore, Tan brings over 20 years of experience as an AV consultant in the hospitality and events industries before moving into systems integration. Tan specialises in designing systems for acoustically challenging environments, be it in the live events or installed sound sector and is also a skilled business manager.

"It's an honour to be representing KV2 in the APAC region," says Tan. "I've long admired their technology and their approach to acoustics which, in my view, sets them apart from their competitors. I was introduced to the brand in 2010 and was immediately intrigued with the clarity of the ES1.0 cabinets. Since then, the product range

has continued to develop with more options for a wide variety of applications. I have achieved some of the best results in my career using KV2 equipment although I'm often asked to defend my choice. However, in my experience, once the client has heard a demo, all his questions are answered! I'm delighted to become part of the KV2 family and take an active part in the next chapter of their development in Asia. While KV2 has a certain presence in the region, I'm confident that I can continue to elevate the brand to even bigger and better things," he continues. "Opportunities don't just happen - you create them with hard work and passion - and that's exactly what I intend to do for KV2 - create opportunities."

KV2 Audio CEO, **George Krampera Jr.**, is delighted to welcome Tan on



Robert Adrian Tan, KV2 Audio

board. "It's been over two years since the untimely passing of our friend and colleague, **Dave Croxton**, and we still miss him every day," says Krampera. "However, David and I had already talked about Robert, and we both felt that he would be a great fit for the KV2 family, both professionally and as a person. Covid slowed everything down of course, but once we were able to start recruiting again, Robert was an obvious choice. His knowledge of the region and his network of contacts are enormous, as are his technical and business skills. Coupled with his adaptability, enthusiasm and passion for the brand, I'm sure that Robert will be able to take KV2 to the next level in Asia."

ALLEN & HEATH PROMOTES NIC BERETTA TO DIRECTOR OF PRODUCT

Allen & Heath announced the promotion of **Nic Beretta** to Director of Product.

Most recently working as Head of Product, Beretta joined Allen & Heath in 2010 and has been instrumental in the development of the product management, technical marketing and product support teams at the company. In addition to his new strategic role as a director, Beretta will continue to oversee the product department as well as closer collab-

oration with the R&D and product marketing teams at the company's Penryn headquarters.

"Nic is widely accepted in the industry as a leading product orator, has extensive technical knowledge in professional audio systems, and strong product insight and drive to develop exciting new products," said **Rob Clark**, Allen & Heath's Managing Director. "On behalf of the Directors of Allen & Heath, we are thrilled to have him join the team and we believe he is perfect for

the role."

"I'm really looking forward to this next chapter," Beretta adds. "These 12 years have been a blast, watching the company grow from strength to strength, working with some of the most talented people in the industry, and launching a stream of hugely successful products. I'm excited at the opportunity to shape our product strategy and direction even more, and at what we have planned for the next couple of years. Watch this space!"



Nic Beretta, Director of Product

HALL TECHNOLOGIES EXPANDS TEAM WITH FIVE NEW APPOINTMENTS

Hall Technologies, one of the global AV companies specializing in unified communications applications, has hit another growth spurt adding five new staff members.

Hall's global team now includes **Daniel Adams** as Technical Support Manager for the EMEA region, **Brandon Gramse** comes aboard as Senior Electronics Engineer along with **Rey Aviles** as Support Manager / Applications Engineer for Inside Sales, Hall Technologies added **Mario Becerra** as an Account Manager, and lastly **Victor Vasquez** was added as a Customer Service Technician.

"We love the tremendous growth opportunities our new staff members bring to Hall. The company's trajectory has been on a steady rise for more than two years now beginning with our rebrand in 2020. The purpose of rebranding was

to put a greater focus on the human centric products and the global solutions Hall is developing. For more than three decades Hall had been focused on creating singular products, but in today's current climate, the demand for new end-to-end solutions has become more apparent. The culmination of our rebranding, GLI's Investment into Hall earlier this year, and the addition of new members to our team, helps solidify Hall's plans for product expansion," says VP of Sales and Marketing, **Hal Truax**.

Daniel Adams has worked as both

an integrator and at a distributor/manufacture level within the AV industry for over 15 years. Daniel is joining Hall Technologies to bolster the technical expertise outside of the USA and bring in-territory pre and post-sales support. He has a degree in Electronic Engineering and is highly qualified in video distribution.

Mario Bacerra was born and raised in Dallas. He has 20+ years of sales experience. Outside the office, he's a huge Green Bay Packers fan, and enjoys spending time with his family, producing music, antiquing and treasure

hunting collectibles.

Rey Aviles has previous experience in corporate AV and in the Live Events industry managing concerts and film festivals. Rey will be the new Tech Support Manager/Engineer to assist in organizing and executing QC/QA processes.

Brandon Gramse is a 25+ year veteran in the AV industry with his most recent position at GenComm. His primary responsibilities at Hall will include leading an engineering team with developing, managing, and supporting UCC and AVoIP products.

Victor Vasquez was added as a Customer Service Technician and will be a key point of contact to respond to technical service requests, troubleshoot technical issues, and report the resolution back to management.



FULCRUM ACOUSTIC WELCOMES ZUO "RAMBO" ZHAO AS ACOUSTIC ENGINEER

Fulcrum Acoustic appointed **Zuo "Rambo" Zhao** as the newest member of Fulcrum's engineering team. As Acoustic Engineer, Rambo works on developing new technologies and designing new products. He is excited about the culture and focus on innovation at Fulcrum Acoustic. "I've always wanted to work with **Dave Guinness** and know I will learn a lot from him," says Rambo. "However, what made my decision to come to Fulcrum

is that they really invest in technology. I'll have the opportunity to focus on the research part of R&D and look forward to contributing to the next generation of loudspeakers."

"Rambo's passion for loudspeakers and related technologies is immediately apparent. In his short time with us, he's already become a valuable member of the team" says David Guinness, co-founder and VP of Engineering. "We are excited to have him on board

and know that he will make significant contributions."

Rambo brings a decade of experience in the audio industry working as a live sound engineer, technical director for a touring company, and an audio engineer at Eastern Acoustic Works.

Zuo "Rambo" Zhao, Acoustic Engineer, Fulcrum Acoustic



D&B ANNOUNCES NEW IMMERSIVE BUSINESS UNIT, APPOINTS INDUSTRY EXPERT AL MCKINNA TO LEAD TEAM

Underscoring its commitment to providing immersive solutions for the event technology industry, **d&b** has appointed **Al McKinna** as Vice President of its new Immersive business unit. The creation of the new business unit will be a key enabler of d&b's holistic immersive vision, spanning from audio, video, lighting and media up to extended Reality (xR). McKinna will report directly to d&b Group CEO **Amnon Harman**.

In this role, McKinna will be responsible for d&b's global immersive strategy, developing the business roadmap, establishing strategic partnerships and driving future innovations. The organization under his lead is split across three

divisions: Product Management and Architectural Design, Software Development and Customer Enablement.

McKinna spent the last two decades in leadership roles in both live sound and commercial audio, dedicated to hardware and software technologies alike. Prior to joining d&b he most recently held the position of Head of Product at Focusrite's Optimal Audio after spending 15 years at Avid in senior product management and sales roles. He is based in London, amidst the European creative communities.

"d&b is breaking ground with its integrated immersive vision and I am excited to play a pivotal role in making it a reality. We see a huge opportunity to enhance an audience's experience with d&b's immersive technologies



Al-McKinna, Vice President

and I am honored to work with this exceptionally talented and experienced team to push the boundaries of what is creatively possible.", shared Al McKinna,

Vice President, Immersive.

Amnon Harman, CEO, d&b Group "Today's announcement marks the beginning of an exciting chapter for d&b, not only because we gain Al's expertise and talents but also because this marks the transition of all d&b immersive endeavors under one business unit. A truly immersive performance is not only an enveloping sound experience, but also the amalgamation with light and video, which puts d&b in a unique position. This new organization, established right at the core of d&b, allows us to build an immersive business roadmap from an integrated viewpoint, considering both our audiotechnik and solutions customers."

UNIGUEST APPOINTS FORMER PRESIDENT AND COO MATT GOCHE TO CEO POSITION

Uniguest, one of the global leaders in digital engagement technology to multiple end markets, announced today important leadership changes, most notably the promotion of **Matt Goche** to Chief Executive Officer from his role as Chief Operating Officer, taking over responsibility from **Jeff Hiscox** following a highly successful six-year tenure.

Hiscox will move into the Chairman role on Uniguest's board of directors and act as a strategic advisor to the Uniguest executive team, while Goche steps up to take responsibility for the day-to-day operations of the company



and driving revenue growth.

On his departure, Hiscox commented, "This is the right time to make this change both for me personally and the company. I feel the executive leadership team is well positioned to take the company forward. "With setting up our operations to support our organic growth, supporting the commercial teams to drive top-line revenue, and with bringing on new companies through his tireless efforts on acquisitions and integration, Matt has been instrumental

Matt Goche, CEO, Uniguest

in growing Uniguest and I've no doubt he will continue to be successful in his new role."

Matt Goche added, "Under Jeff's outstanding leadership and guidance, our global business is strong and well positioned. He hands over the reins at an exciting time for the business, and I am thrilled to be leading the team forward as we enter the next phase of growth at Uniguest. 2023 and beyond are going to be important years for our industry and for our business, and I am proud and motivated to lead an amazing group of people at Uniguest."

CLEARONE APPOINTS DEREK GRAHAM AS PERMANENT CEO

ClearOne announced that its Board of Directors has appointed **Derek Graham** as Chief Executive Officer (CEO).

Derek Graham was appointed to the role of interim CEO in May 2022.

Eric Robinson, Chairman of the Board of Directors said, "Derek Graham has provided strong and decisive leadership in the last few months and navigated the company through a particularly challenging time. I am confident that Derek will continue to guide ClearOne through the next phase of growth. The Board and I are delighted to appoint Derek as ClearOne's CEO."

Derek Graham joined ClearOne in

2003 as a Lead Engineer and rose through the ranks. He has overseen the development and introduction of multiple generations of professionally installed audio and video conferencing, video streaming, wireless microphone, digital signage, and camera products. Derek Graham has authored 13 patents, including many patents that are critical to ClearOne's success.

"I am very grateful for this opportunity and thank the Board of Directors for expressing faith in my abilities to steer ClearOne to



the next level. ClearOne is a truly unique and talented organization with a proud history of pioneering product innovation. I look forward to continuing my work with this amazing team to deliver great results to our investors, channel partners, end users, and other stakeholders," noted Mr. Graham.

Derek Graham, Chief Executive Officer (CEO)

SENNHEISER GROUP INTRODUCES NEW EXECUTIVE MANAGEMENT BOARD

Following the realignment of the company with a focus on the professional audio business, the **Sennheiser Group** is entering 2023 with a newly formed management team. The audio specialist's new Executive Management Board includes representatives from the three business units, Pro Audio, Business Communication and Neumann, as well as Supply Chain, Corporate Functions and Development. Together with Co-CEOs **Daniel Sennheiser** and **Andreas Sennheiser**, the Board members will implement the strategic goals of the Sennheiser Group.

As of January 1, 2023, the operational business of the Sennheiser Group will be managed by a team of six: The new Executive Management Board (EMB) includes **Greg Beebe** (Executive Vice President Professional Audio), **Ron Holtdijk** (Executive Vice President Business Communication), **Ralf Oehl** (CEO Georg Neumann GmbH), **Steffen Heise** (CFO), **Dr. Andreas Fischer** (COO) and **Markus Redelstab** (CTO). **Peter Claussen** and **Thomas Weinzierl**, who were previously COOs responsible for Professional Business and Supply Chain, will also remain on the EMB before their respective retirements in the course of the years 2023 and 2024. In the intervening period, they will gradually hand over their operational tasks and extensive knowledge to the new EMB. In the future, Co-CEOs



The new management team of the Sennheiser Group, consisting of Co-CEOs, EMB and extended EMB (from left to right): Steffen Heise, Markus Redelstab, Dr. Andreas Sennheiser, Yasmine Riechers, Dr. Andreas Fischer, Ralf Oehl, Greg Beebe, Ron Holtdijk, Mareike Oer, Daniel Sennheiser

Dr. Andreas and Daniel Sennheiser will primarily focus on corporate management and strategy development and devote more time to customers, while the other EMB members will manage the operational business. **Yasmine Riechers** and **Mareike Oer** complete the leadership of the Sennheiser Group as an extended management team, representing the Corporate Development Office and Brand & Corporate Communication.

"With the integration of the business units into the EMB, our customers are moving even more into focus," explains Co-CEO Andreas Sennheiser. "In the future, their very different needs will be represented at the highest management level and included in all decisions, enabling us to act even closer to the market." The inclusion of product

development into the direct scope of the EMB also reflects the great importance of this area and the associated efforts to align innovations and new technologies even more closely with customer needs. And by dovetailing all central functions with the business units, the different perspectives will be brought together in a new, strong management team.

"With this step, we are adapting our management structure to our new corporate positioning with a focus on the Professional Business," explains Co-CEO Daniel Sennheiser. "At the same time, we are further developing our leadership culture – in line with our corporate culture." The Co-CEOs have already been leading the family-owned company in a dual leadership as part of a management team since 2013. The

new set-up, whose introduction was accompanied by Peter Claussen, is also shaped by this management philosophy: "We are firmly convinced that rigid hierarchies in corporate management are outdated. Just as we as Co-CEOs share overall responsibility for our family-owned company, we will also shape the path for Sennheiser in the expanded management team," said Andreas Sennheiser. "After all, the most important guarantor of our future success is the people who work together worldwide under the umbrella of the Sennheiser Group. Our shared culture and our passion for what we do unite us. With the new EMB setup, we are also reflecting this ethos in our corporate management."

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