AV-ICN EXPO
MAGAZINE

AV INTEGRATION COMMUNICATION NETWORKING

TOP 50 PRODUCTS & TECHNOLOGIES FROM 2024

GLOBAL PRO AV INNOVATIONS AND TRENDSETTING TECHNOLOGIES

Global Pro Audiovisual Technology

TOP 50 PRODUCTS

By Hyve

REDEFINING SHOPPING MALL FAÇADE WITH XTREME MEDIA'S LED DISPLAYS

RHINO ENGINEERS WRAPS SHAMLAJI TEMPLE WITH BREATHTAKING 3D PROJECTIONS

OTHER STORIES:

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29 - 31 MAY, 2025, BEC, MUMBAI

The AV-ICN Conference sessions pave the way for the growth and development of the AV industry, with dynamic topics that align with the ever-evolving Indian AV landscape. The highlight is the presence of a knowledgeable lineup of key AV industry experts and thought leaders at the AV-ICN Conference platform, captivating attendees with engaging panel discussions and a diverse series of seminars.

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AV-ICN TEAM

Narendra Naidu, Chairman & MD, Rhino Engineers with Anil Chopra, Founding Director of CAVS

INDIAN AV TECHNOLOGY IDENTITY

Anil Chopra, Editor-in-Chief, PALM and AV-ICN Expo Magazine

2025 is important. This year Indian AV must create an Indian AV identity. **AV-ICN** in itself is determining its own identity with **CAVS-Certified AV Specialist** movement. This year we plan four CAVS, Bengaluru, Hyderabad, New Delhi, and at the **AV-ICN Expo** in Mumbai. We have interest from overseas for our curriculum. Faculty development is our focus to spread CAVS. As well reinventing the curriculum

Indian product in design and application must be an objective, aim, goal and achievement. Education AV seems to be the application in which a breakthrough product can be achieved. Education AV has received hundreds of millions of dollars investment from government. Our government has shown to be enlightened. Focus on digital education. Smart classroom has witnessed fantastic impetus with huge deployment of funds. Has the AV industry responded with value for money technology? Or has it been opportunistic, counting profits without a conscience? Edtech/Education AV is definitely big business in 2025.

Big business in AV in 2025 is then in hospitality. Hotels, QSRs. lounges, bars, restaurants. night clubs, parties, celebration events. Weddings in India is a AV segment unto itself. Corporate investment in AV figures in the top three segments of AV spend. Aviation is big AV opportunity (nearly $2 billion expenditure). Healthcare again is big AV business in 2025.

Returning to the importance of establishing a strong Indian AV identity the eponymous magazine of AV-ICN Expo is making a mark. Publishing AV-ICN has been a most rewarding task. Communication with technology companies and disseminating product information, circulation within the AV ecosystem has indeed given the AV-ICN platform strength, and purpose. 2025 shall further this identity. Our one mantra in tandem with that of the country is to push for manufacturing in India. All products in AV System installation and integration. AV Signal distribution and switching and AV conversion scaling and processing. Displays are indeed being manufactured in India. Interactive, touch screen, and micro pitch LEDs, in fact all applications. The demand and consumption in India is so huge that investments are organic. However, the mantra has to be determinate with a patriotic fervour and imperative mindset to ensure geopolitically India is not compromised.
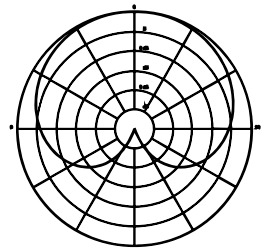
OPTOMA UNVEILS HYVE COLLABORATION HUB

Optoma, one of the global leaders in display solutions, announced the launch of its latest innovation – the **Optoma Hyve Collaboration Hub**. This groundbreaking smart hardware device enables seamless integration and unified management of both legacy and multi-brand display devices within a single network domain, facilitating an unprecedented transformation in display management.

The launch of the Hyve Collaboration Hub represents a major milestone for Optoma in display devices and remote management. Historically, users have faced limitations due to the requirement for brand-specific hardware and software, leading to increased setup complexity, restricted cross-brand collaboration, and higher replacement costs during upgrades. Designed to surmount these obstacles, the Hyve Collaboration Hub centralizes the control of vari-

ous display devices, regardless of brand or model. From outdated models lacking smart capabilities to existing displays from multiple brands, the Hyve Collaboration Hub transforms them into a cohesive, fully interactive display ecosystem.

The Hyve Collaboration Hub stands out with its cross-brand and cross-model compatibility. Leveraging Optoma's proprietary OMS (Optoma Management System) soft-

The Hyve Collaboration Hub introduces a revolutionary display management experience, offering versatile and efficient solutions for smart classrooms, business meetings, and more

ware, these display devices can be centrally managed and configured for scheduled messaging, enabling users to update and manage content seamlessly from any location at any time. This significantly boosts operational efficiency and helps businesses reduce labour costs, achieving intelligent, automated display management.

Gordon Wu, General Manager of Optoma Asia Pacific, said, "As display devices become more prevalent and application scenarios diversify, corporate demands for display management are on the rise. The Hyve Collaboration Hub transcends brand and model limitations, enabling cross-brand collaboration and smart management to optimize device performance and lead the way in digital transformations. Additionally, minimizing the need for device replacements aligns with our commitment to environmental protection."

BOSCH'S CCS 1000 D FAMILY EXPANDS WITH NEW FLUSH RANGE

The renowned CCS 1000 D Digital Discussion System has been expanded with the introduction of the **CCS 1000 D Flush Range**. The latest addition offers a sleek, budget friendly and space-saving solution.

Designed with both form and function in mind, this flush-mounted system provides an elegant and efficient option for venues where optimizing table space is essential. Its user-friendly design ensures easy installation with plug-and-play functionality, making setup simple and providing a seamless user experience for boardrooms, city councils, classrooms and other professional settings.

Advanced technology
Alongside the stylish, space-conscious design that enhances any meeting environment, the CCS 1000 D Flush Range relies on industry-

leading technology. For example, it offers advanced digital audio processing with Digital Acoustic Feedback Suppression (DAFS) for clear, distortion-free speech.

CCS 1000 D Flush Range offers advanced digital audio processing with Digital Acoustic Feedback Suppression (DAFS) for clear, distortion-free speech

Through its intuitive built-in web browser interface, the Flush Range allows users to easily view and adjust both basic and advanced system settings, as required.

On top of this, the system's low susceptibility to mobile phone interference will also be beneficial to users of all kinds. This technology ensures uninterrupted, crystal-clear communication so participants are always understood.

Functionality designed for modern meetings
The CCS 1000 D Flush Range has been created to offer everything required to host efficient meetings. With built-in recording capabilities, automatic HD camera control and energy-saving functions, the CCS 1000 D Flush Range is a versatile and reliable choice for professional discussion spaces.

ATLONA ANNOUNCES NEW AMPLIFIER IN THE GAIN SERIES

Atlona announced the latest additions to **GAIN Series** of audio products. Atlona's **AT-GAIN-M50-LZ** is a two-input mixer amplifier designed for low impedance education and commercial applications. In addition, the AT-GAIN-VOL is a volume control wallplate that seamlessly pairs with the GAIN-M50-LZ and represents a new twist on the GAIN family.

The versatile GAIN-M50-LZ delivers two channels of 25 watts each into 4 or 8 ohms, or a single channel of 50 watts. It features two unbalanced stereo audio inputs on RCA and 3.5 mm connections with independent level control for each. An unbalanced 3.5 mm output can pass the mixed signal to an assistive listening system or separate audio system.

Atlona has boosted the GAIN-M50-LZ's versatility for the education vertical through special capabilities that ensure critical lesson material and announcements are communicated clearly.

This includes audio ducking, which lowers the program audio level on input 1 when a teacher speaks into a microphone system connected to input 2.

The 50-watt mixer-amplifier and companion volume control wallplate opens new possibilities for education and commercial audio

Additionally, its PA sense function mutes the amplifier's output upon detecting activity on the school public address system. These features were first introduced earlier this year within Atlona's **AT-OME-CS31 Series** of switchers and are now included in the GAIN-M50-LZ amplifier as well.

Mounting flexibility and energy efficiency are also key elements of the GAIN-M50-LZ. Its low-profile enclosure is UL 2043 rated for installation in plenum airspaces, or it can be placed on the wall behind a display or under a table. It is also Energy Star qualified, helping to reduce power consumption and energy costs.

The GAIN-VOL provides a convenient, easy-to-use manual interface for controlling GAIN-M50-LZ volume levels when a traditional AV control system is not being used in the room. The GAIN-VOL is housed in a US one-gang enclosure intended for wallplate openings and includes interchangeable black or white trim kits.

AUDAC INTRODUCES NWP SERIES AS PART OF THE ATELLIO FAMILY

AUDAC unveiled the **NWP Series**, a revolutionary lineup of network input and output panels that redefine the future of AV installations. As part of the **Atellio Family**, these panels introduce an unprecedented approach to networked audio by integrating internal mixing, Digital Signal Processing (DSP), and seamless control, all within a scalable, flexible platform.

Designed to simplify even the most complex setups, the NWP Series offers installers and integrators maximum versatility, with Dante and AES67 compatibility across the range. These network I/O panels are designed to enhance the user experience, providing installers with fast deployment and intuitive operation. From hospitality and retail to corporate environments, the NWP Series is equipped to handle the demands of modern AV systems.

The NWP Series comes equipped with a wide range of input options to fit any installation need. These include XLR inputs for professional audio sources, USB Type-C for modern digital connectivity, 3.5mm jacks for auxiliary devices, and Bluetooth for wireless streaming. This variety ensures that no matter the audio source, the NWP Series offers seamless integration into any networked audio setup.

Beyond input flexibility, the panels

The NWP Series offers installers and integrators maximum versatility, with Dante and AES67 compatibility across the range

feature internal mixing and DSP, allowing advanced audio processing directly within the device. Each panel is fully supported by AUDAC Touch platform, providing an intuitive, all-in-one solution for designing and controlling audio systems. The flexible and scalable software architecture ensures that these panels can adapt to the changing needs of any installation, making them quick to learn and fast to deploy.

The Atellio Family:

The NWP Series is part of AUDAC's Atellio Family, a product range built around the principles of flexibility and scalability. With every product designed to function as a standalone solution, installers can achieve more with less hardware, making installations more efficient and cost-effective. With AUDAC Touch, you gain complete control over your entire system from a single interface, reducing complexity and enhancing the user experience.

ALFATRON ELECTRONICS ANNOUNCES SCK51TS-D DANTE AND HDBASET PRESENTATION SWITCHER

Alfatron Electronics, a manufacturer of products for the AV market, introduced the **SCK51TS-D Presentation Switcher**. With support for video resolutions up to 4K@60Hz 4:4:4, 8-bit deep colour, auto or manual switching, and HDCP 2.2 compliance, the new SCK51TS-D is a seamless 5 x 1 presentation switcher that makes the ideal solution for intuitive control in today's software-based video teleconferencing rooms.

The SCK51TS-D provides five video inputs— two USB C and three HDMI inputs. Each USB C input supports LT DP mode up to 4K@60Hz 4:4:4 8-bit deep colour, USB 2.0 data, and 60W power charging to a USB C source device.

It also features Ethernet over USB C functionality to enable a USB C source device to seamlessly access the Internet. Local USB KVM switching and extending USB 2.0 over HDBT are also supported to connect external USB 2.0 devices such as cameras for a video conference. Equally

The newly introduced SCK51TS-D switcher has a built-in Dante audio input and output interface

notable, the SCK51TS-D offers both multiview and single view video output capability. With the multiview function, multiple sources can be displayed on a single screen.

The SCK51TS-D switcher has a built-in Dante audio input and output interface, and it can easily be connected to any existing Dante enabled audio processing system. The switcher can be controlled via the front panel buttons, a remote control, API commands using RS 232, or TCP/IP. The integrated Web server/GUI features A/V control, automatic display control, and input EDID management, making the unit ideal for software-based video teleconferencing applications.

CLEARONE LAUNCHES BMA 360DX ALL-IN-ONE INNOVATIVE CEILING TILE

ClearOne, one of the global leaders in conferencing, collaboration, and communication solutions, launched the **BMA 360DX**, a complete solution for superior conferencing audio and more sustainable meeting spaces. This innovative solution combines an advanced beamforming microphone array, a fully integrated DSP processor with Dante, and a built-in multi-channel amplifier in a single ceiling tile.

"The BMA 360DX shatters traditional barriers by combining advanced AV and IT technologies for unmatched performance and effortless deployment," said **Derek Graham**, CEO of ClearOne. "This all-in-one design eliminates rack space, and reduces packaging, storage, and shipping requirements, so it contributes to a more environmentally friendly meeting solution."

Integrated beamforming microphone processing within the BMA 360DX provides truly ultra-wideband, frequency-invariant performance with uniform-gain response across all frequency bands. FiBeam technology gives users the ultimate in rich, natural, and full-fidelity audio across all beams and within a single beam. Deep

Sidelobe Beamforming, DsBeam, provides unparalleled sidelobe depth, below -40 dB, resulting in superior rejection of reverb and noise in difficult spaces for superb clarity and intelligibility.

ClearOne's 7G Acoustic Echo Cancellation (AEC) and adaptive acoustic processing provide unrivaled echo elimination and full-duplex audio, even in the most challenging spaces. ClearOne's BMA

BMA 360DX All-in-One Innovative Ceiling Tile provides truly ultra-wideband, frequency-invariant performance with uniform-gain response across all frequency bands

360DX breakthrough technologies, FiBeam, DsBeam, and 7G AEC, combine to create VividVoice, a significant advancement for professional conferencing which ensures an equitable meeting experience.

Precision beamforming provides intuitive camera tracking and unparalleled audio with rich, natural, full-fidelity ultra-wideband sound. Native camera tracking support for networked PTZ cameras provides an engaging and seamless visual experience and eliminates the complexity and expense of external controllers. The Voice Lift feature provides a powerful way to cover multiple zones with unmatched gains, ensuring everyone can hear every word, especially in large spaces.

An integrated DSP processor provides everything needed to combine, route, and process all the audio signals with no compromises. This includes acoustic echo cancellation, noise suppression, auto mixing, equalization filters, delays, feedback eliminators, compressors, limiters, and Dante. The built-in power amplifiers, selectable as 4x15 Watt or 2x30 Watt, simplify installations with loudspeakers.

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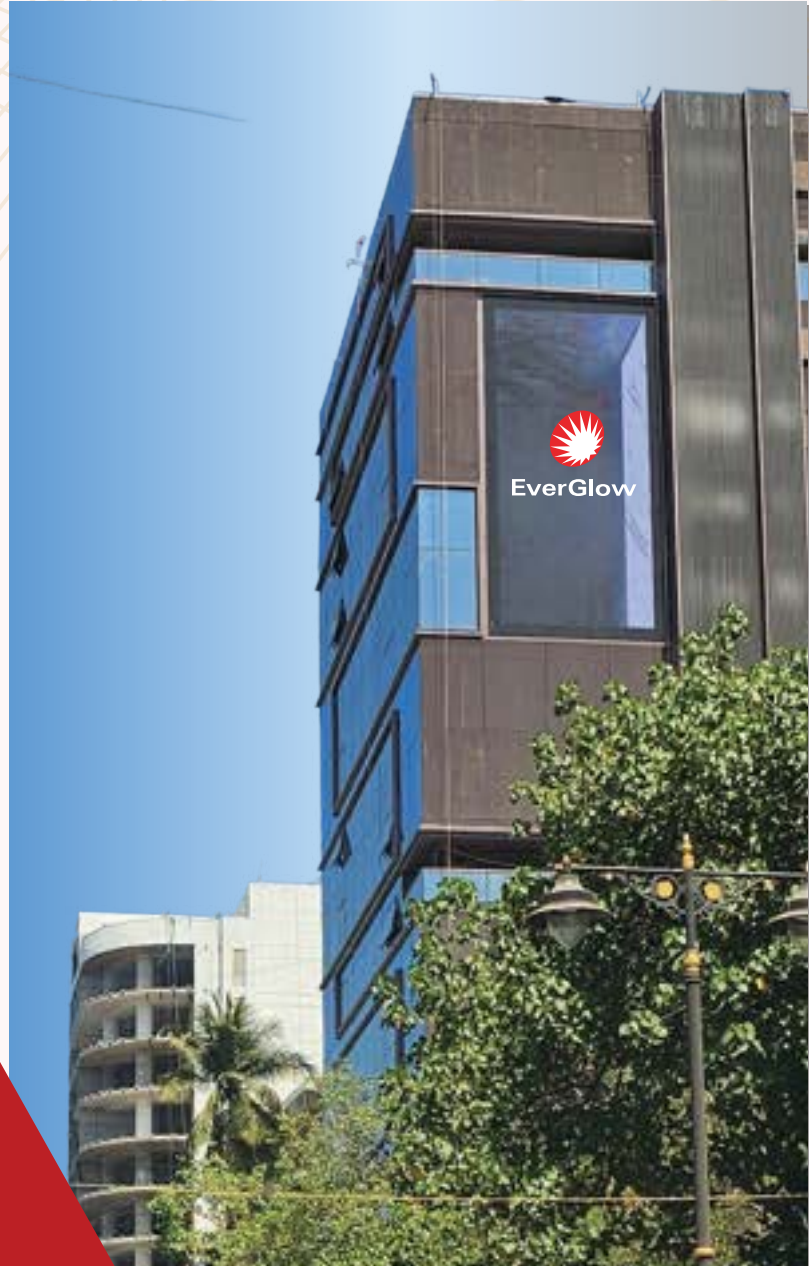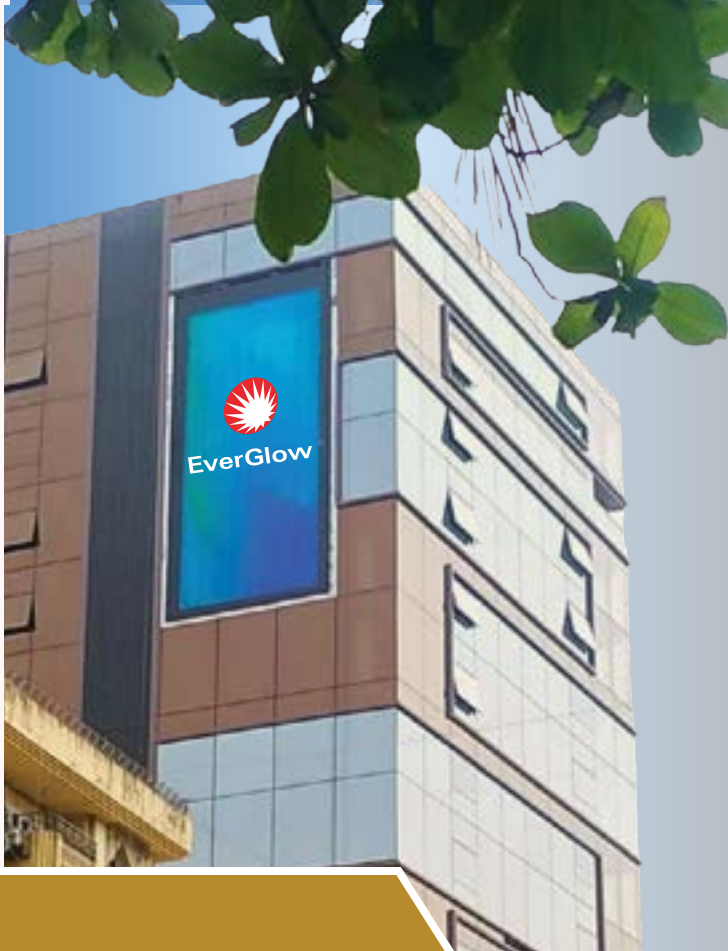
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JBL PROFESSIONAL INTRODUCES CONTROL 400 ENHANCED COVERAGE SERIES CEILING SPEAKERS

HARMAN Professional Solutions, one of the global leaders in audio, video, control, and lighting systems, announced the launch of its **JBL Professional Control 400 Enhanced Coverage Series**, representing the next generation of excellence from the most trusted name in ceiling loud-speakers. As the successor to the legendary **JBL Control 20 Series**, known for impeccable versatility and reliability, the new Control 400 Series extends that legacy with superior sonic performance, improved conical coverage, enhanced installation features, and a more modern aesthetic.

Adapted from its renowned tour sound technologies, JBL Professional introduces its latest iteration of Radiation Boundary Integrator (RBI) technology: the **Coplanar RBI or CRBI**. This technology provides an especially smooth sound character that remains consistent, clear, and pleasant across a wide coverage area. This enhanced coverage results in more consistent levels and can lead to fewer required speakers and amplifier channels, and ultimately, significant project savings.

All models in the series include an all-new, full-face magnetic grille that blends seamlessly with modern decors. The supplied white grille can be easily painted to match any application decor. Optional black and square grilles are also available.

Per JBL's longstanding commitment to installer-centric design, the series includes a variety of mounting enhancements to

JBL Professional Control 400 Enhanced Coverage Series bring superior sonic performance, improved conical coverage, and enhanced installation features

KRAMER INTRODUCES NEW POE-POWERED DANTE SPEAKERS AND HIGH-END INSTALLED AUDIO PORTFOLIO AT ISE 2025

Kramer, one of the leading companies in audio-visual experiences, announced the launch of its new line of premium speakers. This broad portfolio includes PoE-powered Dante speakers alongside other innovative models, delivering exceptional sound quality, sleek design, and simplified installation for professional environments.

Kramer is gearing up to make a powerful statement at ISE 2025 highlighting its comprehensive end-to-end audio-visual portfolio, bolstered by the recent acquisitions of **Ashton Bentley and ZeeVee**.

This new portfolio introduces PoE-powered Dante speakers, which enable seamless integration into networked AV systems. These soakers reduce installation complexity and wiring requirements, making them a perfect fit for modern installations. Each PoE-powered Dante speaker has a correspond-

ing passive model with the same industrial design and sound profile, allowing system integrators to mix and match speakers while maintaining consistent sound quality and a cohesive look across installations.

Premium Sound, Seamless Integration

Kramer's new speaker line delivers crystal-clear audio, optimized for speech clarity and background music, making them ideal for conferencing, education, retail, and hospitality settings. With advanced sound dispersion technology, the speakers provide consistent audio coverage, eliminating "dead spots" and ensuring every note and word is heard with precision.

Kramer's focus on system integrators is

Kramer's PoE-powered Dante speakers enable seamless integration into networked AV systems

AV COMMUNICATION & NETWORKING

SHURE ANNOUNCES NEW SOLUTIONS FOR SUPERIOR MEETING EXPERIENCES

Shure, one of the leading manufacturers of audio solutions for collaboration, introduced new conferencing and collaboration solutions that will be showcased at ISE 2025 in Barcelona.

Boosting Collaboration in Microsoft Teams Rooms Shure launched the new IntelliMix Room Kits, complete Microsoft Teams Room systems that are designed for effortless deployment in small to large meeting rooms, up to 33 x 18 ft (10 x 5.5 m). With industry-leading audio and video performance, incredibly easy setup, and robust security and cloud management, IntelliMix Room Kits are set to transform the modern meeting experience.

Next Generation of Wireless

Shure announced the launch of **Microflex Wireless neXt 4** and **neXt 8 (MXW neXt 4 and neXt 8)**. Building on the release of the award-winning 2-channel system in 2024, MXW neXt is now available in 4 and 8 channel count options – offering fully reimagined wireless collaboration with contemporary industrial design, pristine audio quality, and groundbreaking speed of set-up. Scalable to a variety of meeting and classroom environments, MXW neXt sets the standard for best-in-class wireless.

AV integrators and IT managers require robust and flexible wireless systems that are easy to get up and running in minutes with the touch of a button. As part of the MXW neXt portfolio, MXW neXt 4 and neXt 8feature a unique combination of IntelliMix Digital Signal Processing (DSP) capabilities and comprehensive I/O connections, including USB, Dante networked audio, and analog audio.

New Microflex Loudspeakers Lineup for Conferencing

Shure is expanding its Microflex Ecosystem portfolio with an innovative lineup of passive loudspeakers and a new networked amplifier. Designed specifically for conference rooms, the new Microflex (MX) Loudspeakers offer premium audio quality, flexibility for customisation, straightforward installation, and seamless interoperability. The expanded MX Loudspeaker range includes four new passive speakers – ceiling and wall-mounted – as well as a networked conferencing amplifier, joining Shure's existing networked loudspeaker MXN5W-C. With other Microflex Ecosystem devices, customers now have a complete solution that includes microphones, Digital Signal Processing (DSP), and loudspeakers, all working seamlessly to deliver unmatched performance, security, and installation efficiency.

Shure Introduces IntelliMix Room Kits, MXW neXt 4 and 8, and Microflex Loudspeakers

XILICA INTRODUCES ROOMHUB: A NEW ERA IN AI-DRIVEN INTELLIGENT AUDIO

Xilica, one of the leaders in collaboration audio innovation, announced **RoomHub**, a revolutionary intelligent audio processor that transforms how enterprises deploy and manage audio for medium and large meeting rooms, divisible rooms and classrooms. From the moment it connects to the network, RoomHub's onboard intelligence automatically discovers and configures system components, from microphones to cameras. Its AI AutoDeploy technology then analyses room acoustics and automatically tunes audio perfor-

RoomHub's onboard intelligence automatically discovers and configures system components, from microphones to cameras

mance—eliminating the need for specialized audio programming in deployment and setup.

"Today's enterprise, education and government customers need audio solutions that just work, whether they're deploying in one room or thousands," said **James Knight**, CEO at Xilica.

RoomHub's powerful onboard AI engine delivers real-time intelligence at the edge. AI AutoDeploy listens to your space and automatically optimizes acoustics—no manual tuning required. Its advanced Machine Learning (ML)

A&T POWERS THE FUTURE OF PROFESSIONAL AV SOLUTIONS WITH THE LAUNCH OF AVX3.2 AND AIRPRO

A&T, one of the leading AV solution providers of unique solutions that resolve specific collaboration needs, introduces **AVX3.2** All-in-One Camera Mixer & Switcher and **AirPro** Wireless Microphone,

in any professional setting. AVX3.2 offers advanced multi-camera mixing with 14 dynamic layouts, 1080p60 output, and seamless switching at the push of a button.

AVX3.2 Camera Mixer & Switcher

AirPro Wireless Microphone for professional spaces

redefining how professionals capture, mix, and deliver high-quality content.

Delivering precision, performance, and innovation, A&T's latest AV solutions are designed for seamless video production with superior audio clarity. This powerful duo ensures effortless collaboration, flawless transitions, and studio-grade output

AirPro provides crystal-clear hi-fi sound, near-zero noises, and an 8-hour battery for uninterrupted streaming and recording to the users. The BIS Certified product comes with a 3-year warranty.

The solutions are engineered for meetings, town halls, webcasts, seminars, training rooms, and house of worships,

providing seamless user experience. These make-in-India AV solutions by A&T not only bring innovative technologies to the AV market but also highlight the brand's commitment to deliver cutting-edge solutions for professional video conferencing and collaboration segment.

....

XILICA INTRODUCES ROOMHUB... *Continued from page 12*

algorithms power AI NoiseSense, which intelligently distinguishes and filters both static and dynamic noise, while continuous ML-driven dereverberation adapts to changing room conditions. Combined with the second-generation of Xilica's HearClear acoustic echo cancellation, now with ML and IQ Voice Enhancement, this sophisticated AI stack creates pristine audio that adapts intelligently to each space—ensuring fatigue-free collaboration without human adjustment.

Enterprise-Scale Simplicity

RoomHub reimagines deployment at scale. Organizations can configure devices entirely offline through an embedded web interface, while enterprises seeking global scalability can leverage Xilica Cloud for zero-touch deployment across thousands of rooms. Pre-configuration and advanced provisioning mean devices can automatically configure themselves

once connected to the network.

For IT teams, RoomHub brings unprecedented control and visibility. The system can run comprehensive checks across every connected device nightly, proactively catching issues before they impact users. After firmware updates, room changes, or on schedule, RoomHub automatically verifies every component and delivers detailed health reports straight to your dashboard. This predictive approach ensures maximum uptime and eliminates the common frustrations of traditional AV system management.

Built for Modern Spaces

Despite its powerful capabilities, Room-Hub is remarkably compact — just one-quarter the size of competing solutions. This revolutionary form factor enables installation anywhere: under tables, behind displays, or in drop ceilings. Power-over-Ethernet and a whisper-quiet, fanless

design further simplify deployment.

Built on a fully digital foundation, RoomHub features Dante audio technology and dual USB-C connectivity for plug-and-play installation. Intelligent IQ Director multi-camera tracking keeps every participant in frame automatically, while integrated Bluetooth and Auracast technology enable seamless content sharing and enhanced accessibility through direct audio streaming to hearing assistance devices.

"Large room deployments often challenge IT teams, especially those without AV expertise, with complex setups and audio optimization," said **Craig Durr**, Chief Analyst, The Collab Collective. "The RoomHub addresses these challenges by focusing on the right attributes—AI-driven automation, seamless interoperability, and intuitive cloud management—to support modern IT teams."

UNDERSTANDING **HOME THEATRE** PROJECTION TECHNOLOGY

Home theatre projection screens play a crucial role in delivering high-quality visuals. They significantly impact the clarity, brightness, and overall viewing experience. **Yusuf Galabhaiwala***, Director of Operations at* **Lumina Screens** *shares this feature exclusively with* **AV-ICN Expo Magazine***, aiming to demystify projector screen technology, focusing on the key components and considerations necessary for choosing the right screen for the setup.*

Home theatre projection technology to provide immersive viewing experiences

SCREEN MATERIAL AND COMPOSITION

The material of a projection screen is fundamental to its performance. Different materials, such as matte white, grey, and Ambient Light Rejection (ALR), offer various benefits. Matte white screens are popular due to their accurate colour reproduction and wide viewing angles. Grey screens enhance contrast in rooms with some ambient light. ALR screens are designed to reject ambient light, making them ideal for bright environments. Selecting the right material depends on the room's lighting conditions and the desired image quality. For example, Lumina Screens Leor Black provides exceptional contrast and colour accuracy as it rejects upto 90% of ambient light compared to a standard matte white screen.

GAIN AND VIEWING ANGLE

Gain measures the reflectivity of a screen. Higher gain screens (above 1.0) increase image brightness, which is useful in low-light environments. However, higher gain often reduces the viewing angle, meaning the image quality drops off when viewed from the side. Conversely, lower gain screens (below 1.0) have wider viewing angles but lower brightness. Balancing gain and viewing angle is crucial for creating an optimal viewing experience. Lumina Screens offers various gain options, such as the Leor 1.2, ensuring bright and clear images from multiple angles.

SCREEN SIZE AND ASPECT RATIO

Choosing the right screen size and aspect ratio is vital for an immersive viewing experience. The screen size should match the room dimensions and the projector's throw distance. Aspect ratios like 16:9 is standard for home theatres, providing a cinematic experience. Calculating the optimal screen dimensions involves considering the distance between the screen and the viewers, ensuring everyone has a clear view.

SURFACE TENSION AND TENSIONING SYSTEMS

Surface tension is essential for maintaining a flat and uniform screen surface. Tensioned screens use systems to keep the screen taut, preventing wrinkles and creases that can distort the image. This ensures consistent image quality across the entire screen. Lumina Screens' tensioning systems are designed to provide a smooth, even surface, enhancing the overall viewing experience by eliminating imperfections.

COATING AND REFLECTIVE PROPERTIES

The coating on a projection screen can significantly enhance image quality. Coatings improve colour reproduction and brightness, offering a more vibrant and accurate picture. Different coatings are designed for specific projection applications. For instance, some coatings increase gain, while others enhance contrast. Understanding these properties helps users select a screen that best meets their needs.

Understanding the principles of projection screen technology helps in selecting the right screen for a home theatre.

Shamlaji Vishnu Mandir or Shamlaji Temple – a Hindu temple located in Shamlaji, in the Aravalli district, dedicated to the deity Vishnu, now experiences an applaudable laser light and sound design, showcasing the brilliance of 3D projection mapping in the country. The venue, illuminated by AV consultant, Rhino Engineers and accomplished by systems integrators, Star Dimensions India, leaves the visitors stunned with astounding projections. Content provider, Magical Theatre delivered impressive show content, allowing the three prominent immersive storytellers to accomplish the latest AV project. Narendra Naidu (CMD) – Rhino Engineers Private Limited, Ahmedabad – Gujarat (India), gets in touch with the AV-ICN Expo Magazine team to share insights on the projection mapping and the team's commitment to deliver the visual brilliance.

AV Consultants, Rhino Engineers delivered RGBW dynamic lighting in synchronization with the content covering development, design, and implementation of the 3D Projection Mapping at Shamlaji Temple

RHINO ENGINEERS WRAPS SHAMLAJI TEMPLE WITH BREATHTAKING 3D PROJECTIONS

The Pilgrimage Centre Experiences AV Spectacle with Eminent AV Consultant and Systems Integrator on the Clock

Standing tall with the rich cultural significance in the country, **Shamlaji Mandir** is one of the most holy temples of Lord Vishnu. **Rhino Engineers** **Private Limited**, one of the leading pro AV consultants in India, captivated the attention of the visitors at the temple with innovative façade lightings as the project consultant. The team's major responsibilities included concept development, design, and coordination for RGBW dynamic lighting in synchronization with

The site has been integrated with 7.1 surround sound system and projection system to provide an immersive experience to the audience

content and concept are centred around the Shamlaji Temple is created based on the temple's history, architecture, and the mythical stories associated with it.

The pilgrimage centre is therefore, equipped with visually appealing 3D projections under a 28-minute vibrant show, featuring the narration by **Harish Bhimani** and music by the band, **Indian Ocean**. Presented in three languages – Gujarati, Hindi, and English, the show narrates a rich history that is unfamiliar to many people. Audio system has been designed with 7.1 surround sound to provide an immersive experience for the audience. Additionally, the entire show runs on environmentally friendly and green energy-based power systems, resulting in zero electricity costs for the client.

the content. The team also worked on the 7.1 audio system, projection system, and solar power installations.

Additionally, Rhino Engineers also served as the project management consultants for the project. The successfully achieved project involved supply, installation, commissioning, operation, and maintenance of Shree Shamlaji Vishnu Mandir for five years of the 3D projection mapping system on a turnkey basis. Project owner, **Gujarat Pavitra Yatradham Vikas Board**, Government of Gujarat, Gandhinagar briefed the Rhino Engineers' team on the project for visitors to experience stunning visuals at the historical site.

Star Dimensions India aligned their roles as the systems integrators along with **Magical Theatre** as the content provider to deliver remarkable visuals to the laser light and sound showcase. The video

INVENTORY LIST:

Barco's 3 chip DLP, laser video projector 22000 Lumens – 5 Nos.
Kwant's laser light projection solution (beam size 3x3 mm) – 2 Nos.
Barco's media, production, master show controller server – 1 No.
Dataton's 3D projection mapping software, playback control system – 1 No.
Turbosound audio system 7.1 surround sound with Dolby system – 1 Set
Claypaky's 440 W Moving Head Lights – 1 Set
ABPL 200W RGBW LED Light Fixture – 40 Nos.
ABPL 100W RGBW LED Light Fixture – 15 Nos.
ABPL 24-WATT WW LED Linear Wall Wash 50W – 200 Nos.
ABPL 20W RGBW LED Light Fixture – Wall Washer – 130 Nos.
ABPL 14W RGBW LED Light Fixture – Wall Washer – 48 Nos.
ABPL 12-WATT WW Linear luminaire suitable for facade Lighting – 450 Nos.
ABPL 700-900 lm/mtr dot free LED flexible linear light – 600 m.
ABPL 200W LED light for illuminated for general lighting – 4 Nos.
ABPL DMX controller system with standalone interfaces – 2 Nos.

The entire show ran on environmentally friendly and green energy-based power systems, resulting in zero electricity costs for the client

CHALLENGES AND SOLUTIONS

Large venue projects require attention to details and a careful approach towards every minor detail. Keeping the intricacy in mind, the consultants examined every projection challenge cautiously and chose a remarkable solution that eventually caught the eyes of the visitors.

CHALLENGES FACED FROM THE DESIGN CONSULTANCY PERSPECTIVE:

Designing the projection façade and viewing gallery posed significant challenges. Selecting an appropriate location for the viewing gallery was difficult due to

Date of Commencement 23 July 2023
Date of Commissioning: 30th July 2024
AV Project Cost: Rs. 6,48,90,000/-
Project Launch Date: 25th November 2024
Inaugurated by: Hon'ble Tourism Minister of Gujarat State
Systems Integrators: Star Dimensions India
AV Consultants: Rhino Engineers Private Limited
Content Providers: Magical Theatre

The pilgrimage centre is therefore, equipped with visually appealing 3D projections under a 28-minute vibrant show, featuring the narration by Harish Bhimani and music by the band, Indian Ocean.

the site conditions. The temple has four entry gates with constant pilgrim movement, so Rhino Engineers' team opted for a back right-angle area. The team then selected a projection façade area that covers a quarter of the temple's surface.

CHALLENGES FACED FROM THE INTEGRATION ASPECT:

Integrating lighting and audio systems was another major challenge. As pilgrims move all around the temple area during parikrama, the team had to design light fixtures close to the base of the structure. The Front-of-House and base speakers were installed near the edge of the temple podium, while the surround speakers were placed on the rampart, forming 90-degree L-shapes. An air-conditioned control cabin,

made from a container, was installed on the rooftop of the rampart to house five projectors, UPS, and audio/video hardware and software, protecting them from climatic factors like dust, heat, and rain.

CHALLENGES FACED FROM LOCATIONAL, STRUCTURAL, AND LOGISTICAL PERSPECTIVES:

Installing electrical wiring and light fixtures was difficult due to the temple's historical structure. The team used special mounting arrangements and created stone-based housings for speakers to protect them from the public. As the site is around 140 km away, taking about 2 hours and 30 minutes to reach, most materials

were shipped to Ahmedabad and then transported to Shamlaji by road.

CONCLUSION

Integrating a spectacular combination of projection mapping and RGB dynamic lighting synchronization on one of the finest pilgrimage sites, the project accomplished a first-of-its-kind. The ancient temple architecture now showcases a refreshingly amazing 3D projection under a large surface area of 90ft x 85ft.

TOP 50 PRODUCTS & TECHNOLOGIES

GLOBAL PRO AV INNOVATIONS AND TRENDSETTING TECHNOLOGIES

High-end technologies. Smart automation. A leap towards immersive solutions. The world is gearing up for cutting-edge pro AV solutions with AV manufacturers dominating the entire market by introducing stellar performing products globally. *AV-ICN Expo Magazine*, dedicated to bringing you the best, collates this list of **TOP 50 products** launched in 2024, reviewing some of the outperforming categories in the pro AV industry. The groundbreaking list of products includes innovations in corporate, education, residential, house of worship, hospitality, entertainment, and live installation segments. Determining exceptional pro AV innovations around the world, this list is dedicated to identifying some of the best AV technologies, and therefore, does not rank the products or solutions in any specific sequence.

1. ADTECHNO Dante AV Ultra Encoder & Decoder (DAV-01HT & DAV-01HR / DAV-01ST & DAV-01SR)

The ADTECHNO Dante AV Ultra Encoder and Decoder series delivers visually lossless 4Kp60 4:4:4 video and 8-channel audio over a 1GbE network with subframe latency. Featuring HDMI and 12G-SDI inputs/outputs, loop-out functionality, and a 2.0-inch IPS display

for video preview, audio level meters, and Dante settings adjustments, these devices ensure seamless integration and precise control. With PoE+ support, advanced signal management, and compatibility with Dante Controller, the DAV-01 series is ideal for professional AV applications, including stadiums, boardrooms, and high-end conference environments.

2. Xtreme Media Spectra Home LED Display

Xtreme Media's Spectra home LED display series transforms viewing experiences, bringing high-quality content to life. With elevated movie nights or celebrations, this beautifully engineered home LED display combines superior clarity and vibrant colours to create an immersive experience like no other. With multi-layer calibration, deep black technology, and customizable bezel options, every moment is enhanced with precision and style with this series.

3. Epson EB-PQ2220B Projector

The EB-PQ2220B by Epson, one of the world's smallest and lightest 20,000 lumens, 4K projectors, uses a 20,000-hour virtually maintenance-free laser light source. It also features a hermetically sealed optical engine for high dust resistance and a filterless

cabinet for low-maintenance operation. The projector pairs with 11 optional powered lenses to simplify installation and includes a host of premium features for fast setup, such as built-in NFC functionality, and the optional attachable camera to streamline multi-projector setups. EB-PQ2220B is optimised for special applications in large venue, immersive experience, 3D mapping and live events for audience's seamless experiences.

4. Elite's FALR6 Fresnel Ultra Short Show Ambient Light Rejecting Screens

Elite Screens' FALR6 Fresnel Ultra Short Show Ambient Light Rejecting Screens offers an advanced optical structure that effectively resists interference from ambient light and delivers clear picture

quality even in bright rooms. It is designed for ultra-short-throw projection, space-saving, and flexible installation, proving to be a popular choice among users and the rising advanced technologies.

5. ErthPot Antares Loudspeaker Series

The Erthpot Antares integrated series is a lineup of loudspeakers designed to meet the highest standards of sound quality and speech intelligibility for complex venues. Inspired by Antares, the brightest star in the Scorpius constellation, these loudspeakers are engineered to be the dynamic core of any sound system, embodying vitality and energy. Ideal for a wide range of applications, including conference rooms, houses of worship, bars and cafes, lecture halls, concert halls, and more, the Antares series delivers exceptional
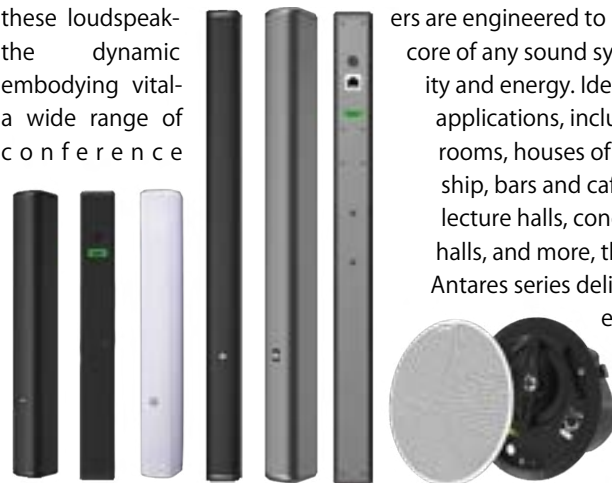
sound quality with unparalleled performance and reliability. Available in both Dante and analog versions, these loudspeakers are the preferred choice for AV professionals seeking superior sound reinforcement.

6. Lumina's Leor Black Screens

Leor Black is Lumina Screens premium matte ALR screen

designed for an unparalleled home theatre experience. With the highest light shielding ratio in its class, Leor Black effectively addresses issues of washed-out images caused by unmanaged ambient light, ensuring optimal image quality and true colours. The screen supports up to 16K resolution, with the Gain of 0.8 and 90% Ambient Light Shielding Rate (A.L.S.R). It maintains brightness while enhancing contrast for detailed and immersive visuals, blocks 90% ambient light interference, ensuring exceptional clarity, and its dark greyish-black surface reduces reflections and maximizes contrast for lifelike visuals.

7. INOGENI TOOGLE ROOMS Switcher

INOGENI Toggle Rooms is a 4K BYOD/BYOM: 3PCs switcher for USB 3.0/HDMI devices and is designed to meet easy configuration requirements. Engineered by video professionals, Toggle Rooms is one of the most compatible USB 3.0 devices that supports USB-C (100 W), USB and HDMI connections. The AV solution comes with

flexible options like USB-C with power delivery 100W or USB-B + HDMI, 2-meter USB-C 100W cable, and is adaptable to 4Kp60 or 21:9 wide screens.

8. AV Master Technology's HDBaseT 3.0 Extender

HDBaseT 3.0 Extender by AV Master Technology is bidirectional or can be TX/RX, especially for projectors like Barco or Christie, and media servers. The impressive extender supports resolution up to 4K@60Hz 4:4:4, 18 GBPS, HDR10+, and up to 100 meters (328 feet),

RS-232, TAA. HDBaseT 3.0 is one of the perfect and most convenient solutions providing easy and flexible installation to the users.

9. LOGIC Estilo 2.0 All-in-One Display Solution

LOGIC Estilo 2.0 is an elegant and feature-rich, 138-inch large-

screen LED display that combines advanced technology with a design to cater to business and personal needs alike. Designed with a focus on usability and flexibility, Estilo 2.0 comes equipped with a built-in SoC (System on Chip), integrated 4GB RAM, 32GB ROM, and wireless content-sharing capabilities, eliminating the need for external devices and complex setups. Its ultra-slim 31mm screen, available for wall or floor mounting, delivers Full HD visuals with a cinematic 170° viewing angle. Additionally, its integrated speakers, offering 30W of audio power each, provide an immersive sound experience for any setting.

10. Avocor S Series Interactive Display

Avocor S series is an interactive display purpose built for education. Offering a seamless and collaborative learning experience for students and educators, the S series is an affordable and adaptable option,

available in multiple sizes from 65" to 86". Boasting a 16:9 4K ultra-HD visual canvas and equipped with wireless sharing and

IR touch for a smooth annotation experience, this sleek display is certified with Google EDLA and preloaded with the Google Play Store so teachers can easily download essential classroom applications. With versatile mounting options, the Avocor S Series can be adapted to suit multiple classroom layouts.

11. Genelec 3440A Smart IP PoE Subwoofer

The 3440A active PoE subwoofer by Genelec combines clean, precise LF performance with single cable networked convenience. Compatible with Dante and AES67, the 3440A can be combined

with any other Smart IP loudspeakers to create truly scalable, full range systems. Designed and built to the highest environmental standards, the 3440A delivers an impressive 106 dB of SPL down to 35 Hz, and its compact design can be floor, wall, or ceiling mounted for total flexibility.

12. JBL Professional Pro SoundBar PSB-2

The JBL Professional Pro SoundBar PSB-2 is a 2.0 channel commercial-grade soundbar, designed specifically for hotel rooms, cruise ship staterooms, meeting spaces, and classrooms. As an evolution in soundbar technology, it is engineered to deliver focused room audio while minimizing sound transfer to neighbouring rooms. Not only that,

PSB-2's front-facing speaker delivers significantly enhanced fidelity over internal television speakers and a 2-position volume limiting switch that adds additional volume limiting capability. Setting new standards for high-performing yet cost effective commercial soundbar, PSB-2 offers exceptional clarity even at low levels, reducing costs and complexity for commercial AV solutions.

13. Christie DWU2400-JS (Jazz Series) Projectors

Offering premium performance, Christie Jazz series 1DLP laser projectors hit all the right notes with stunning visuals and exceptional value. Powered by new generation of advanced electronics, the DWU2400-JS delivers 23,750 lumens of colours that pop, deeper blacks, and lifelike contrast, all from a remarkably small chassis weighing less than 65lbs (30kg). Jazz series' cutting-edge performance is set to illuminate both big and small venues including concerts, theme park attractions, museum exhibits, and even projection mapping.

14. Optoma ZK810TST 4K UHD Laser Projector

Optoma's ZK810TST 4K UHD laser projector is suitable for fixed installations within education, museums, houses of worship, large venues, simulation, or immersive applications. Designed with the environment in mind, these are one of the first pro AV projectors to be part of Optoma's Eco Promise. The eco-friendly chassis design is made with up to 50% PCR (Post-Consumer Recycled) plastics and the packaging contains up to 97% recyclable materials. Delivering an astonishing 30,000 hours, the ZK810TST combines a

long-lifetime light source and an independent IP5X certified optical engine for 24/7 operation capabilities, offering truly maintenance-free projection. With high brightness, colour precision and quiet operation, along with a fixed standard throw lens making this projector the ideal solution for a variety of end user scenarios and professional environment.

15. Kramer SWT3-31-HU Switcher

Kramer's SWT3-31-HU is a 3x1 automatic USB-C switcher designed for seamless connectivity in modern workspaces. With three USB-C inputs and one HDMI output, it ensures hassle-free device switching and high-quality video output up to 4K@60Hz. More-

over, the device is compact and versatile making it the ideal solution for efficient, clutter-free collaboration and presentations. The high—performance auto—switcher allows users from enterprise and education hybrid huddle spaces to connect seamlessly with advanced hybrid meeting solutions.

16. ClearOne's Versa Lite BMA 360D Microphone Array Ceiling Tiles

The Versa Lite BMA 360D combines ClearOne's one of the industry-leading BMA 360D Dante microphone array ceiling tiles with the Versa USB22D Dante adapter, offering a perfect audio solution for any conferencing space with an easy connection to any computer or room device via USB. Versa Lite BMA 360D allows integrators and users to leverage ClearOne's unrivalled microphone innovations in any conferencing application, including Microsoft Teams, Zoom, and Google Meet. The Versa Lite BMA 360D delivers crystal-clear audio in meeting spaces and provides simplified configuration and management.

17. Viewsonic's ViewBoard IFP110

Tailored for educators and presenters, the ViewBoard IFP110 boasts an expansive 110" screen, delivering a captivating experience for large-scale presentations. Its intuitive launcher ensures seamless navigation, complemented by Google, Microsoft, Apple, and NFC card single-service sign-in options for both convenience and security. Facilitating efficient presentations and collaboration,

it features an integrated 8-array microphone that enhances audio quality, along with features like wireless casting and the USB-C one-cable solution that streamlines connectivity. Fully integrated with ViewSonic software, the IFP110 offers a comprehensive solution that suits the dynamic needs of in-person or hybrid scenarios.

18. Shure MXW NeXt 2 Wireless Microphone

The Microflex Wireless neXt system by Shure is more than a wireless microphone. It's an all-in-one audio solution for hybrid classrooms, training rooms, and lecture halls that provides superior audio for conferencing and presenta- tions at the same time. Despite its compre- hensive feature set, the MXW neXt system is easy to set up in minutes. The MXW neXt 2 wireless microphone system is the next step in audio for hybrid events, combining four components – a state-of- the-art wireless microphone system, smart charg- ing station, advanced digital signal processor, and a fully equipped audio interface.

19. Sennheiser Spectera Series Digital Wireless Ecosystem

Sennheiser's Spectera series represents a groundbreaking ad- vancement in wireless professional audio, introducing the world's first wideband, bidirectional digital wireless ecosystem. This inno- vative system offers up to 64 channels (32 in/32 out) within a single 1 RU base station, providing audio professionals with exceptional capability and flexibility. Spectera's 11 Audio Link modes allow pre- cise control over latency and audio quality for each link, while its bidirectional SEK bodypacks simultaneously handle in-ear monitor and mic/line signals. Utilizing Sennheiser's Wireless Multi-Channel Audio Systems (WMAS) technology, Spectera accommodates entire productions within a single wideband RF carrier (6/8 MHz), significantly enhancing resistance to dropouts com- pared to traditional narrowband systems.

20. NETGEAR's M4350 Series SMPTE ST 2110 Switches

The NETGEAR M4350 series is a versatile 1G, 2.5G, 10G, 25G, and 100G pro AV solution designed for the edge, the server room, and the core. Delivering nonstop forwarding, stacking, spine and leaf, edge to core connectivity for AV and IT networks, the M4350 series has been upgraded in 2024 with interoperability between

Intel's Media Transport Library and E800 series Network Interface Cards. Purpose-built for AV, Netgear's managed switches offer fast and easy GUI configuration with quiet operation for production environments. The device stands as a simplified user interface mak- ing it easy to assign configuration profiles to each port, developing AV-over-IP solutions for the broadcast and pro AV industries.

21. Neat Bar Generation 2

The all-in-one video conferencing bar, Neat Bar Gen 2 is a com- pact and highly capable meeting device designed for Zoom or Microsoft Teams meeting spaces. The next-generation Neat Bar boasts simple yet powerful audio and video quality to virtual meetings, incor- porating well-crafted arrangement of microphones, speakers, camera, sensors, power sup- ply, and process- ing. It's ideal for small to medium-sized m e e t i n g spaces, seamlessly blending in with any interior style. Neat Bar allows users to enjoy intuitive meeting experiences via machine learning algorithms that continuously adjust and adapt to a room's acoustics, noises, and lighting conditions.

22. Biamp CCA-80 Loudspeaker

The Biamp CCA-80 loudspeaker is a full-range, 3-way horn device designed to solve the acoustical challenges presented by long aisles and concourses found in warehouses, sports complexes, shopping malls, hotels, themed entertainment venues, and more. The con- stant coverage asym- metrical loudspeaker minimizes reverberation and enhances intelligibility for applications that require clear paging and quality background music. Offering an industry-first asymmetric,

rectangular coverage footprint with a longer throw distance, the CCA-80 minimizes necessary loudspeaker count, creating more cost effective and efficient large-scale deployments.

23. Electro-Voice EVID-C-G2 Ceiling Speakers

Electro-Voice introduced simplified, superior ceiling sound with EVID-C-G2 ceiling speakers. With EV's patented SST (Signal Synchronized Transducers) technology, EVID-C series allow a larger waveguide to fit inside a more compact enclosure, resulting in enhanced acoustic performance and pattern control for exceptional full-range intelligibility. Moreover, shallow profiles allow the speakers to fit into tighter spaces, with no compromises in sound quality. The new model, EVID-C-G2 expands on the same-diameter models introduced with the previous EVID-C series, adding to the standard 11" diameter option with new 7" and 13" diameter options to ensure more consistent appearance across multi-model installations.

24. Sharp P Series Laser Projectors – XP P601Q and XP-P721Q

Delivering stunning 4K UHD picture, the Sharp P series is a commercial grade, entry installation series, DLP, laser projector that is bright enough to meet the needs of higher education, corporate users, and museums. At 6,000 lumens - the P601Q

and at 7,200 lumens - the P721Q produces clear images in well-lit environments. Its DLP technology eliminates the need for a filter. Topping it all, combined with the maintenance free laser light source, this projector provides years of worry-free operation ensuring flexible installation and durability for professional spaces. It also offers time-saving installation flexibility with broad horizontal and vertical motorized lens shift, a 1.6x motorized zoom lens, motorized focus, roll free capability, and HDBaseT input.

25. Bose Professional EdgeMax EM90-LP Loudspeaker

The EdgeMax LP loudspeaker models by Bose Professional feature an 80-degree vertical coverage angle for use in rooms with lower ceilings, and their shallow 4-inch backcan is ideal for

spaces with above-ceiling limitations and tighter clearances. Acoustically excelling larger rooms with higher SPL benefit from the powerful, deeper 9-inch cans and 75-degree vertical coverage with the original EdgeMax models. These models are purpose-built to provide specific horizontal coverage. The EM90-LP's 90-degree horizontal coverage angle is optimized for corner placement, with wall-boundary loading providing extended bass impact in the rooms.

26. Crestron 1 Beyond Cameras

Clearly capturing everyone in the room, Crestron's 1 Beyond Cameras are built with visual AI, delivering exceptional quality from any angle in large meeting rooms. The new powerful processor and intelligent framing allow a more natural experience, ensuring everyone can be seen and is centred in the frame. The camera quickly adjusts framing by anticipating behaviour and changes views based on visual cues. With 1 Beyond cameras' optical zoom, meetings can experience participants closer without losing resolution — even people as far as 60-feet away. Moreover, elevating meeting equity and engagement, Crestron's PTZ camera allow participants to enjoy an automated, broadcast-quality video production with high-quality collaboration for everyone in the meeting room.

27. Maxhub XCore Kit Pro Conferencing Solution

Maxhub XCore Kit Pro is a Microsoft Teams Room conferencing solution designed for medium to large meeting rooms. The kit boasts of a touchscreen (11.6 inch) control panel and a mini-PC (12th gen Intel Core i5 processor) running Microsoft Teams Rooms for seamless collaboration. Users can not only enjoy effortless video conferencing but wireless sharing capabilities also, offering a comprehensive and user-friendly conferencing experience in professional environments.

28. AHUJA DCW-8500 Series Wireless Conference System

The DCW-8500 Digital UHF Wireless Conference System is a highly flexible, feature laden system ideally suited for the most demanding conference room applications at corporate, educational, and hotel conference room venues. The conference system features excellent sound quality for highly intelligible and noise free communications. Topping some of the finest conferencing technologies, DCW-8500 stands-out in mode selection, simple to set - feedback suppression, rechargeable batteries for chairman unit and delegate units, built-in software based digital signal processing, automatic video camera tracking

from one or multiple cameras, and built-in USB recording.

29. Barco Clickshare Bar Pro Video Bar

ClickShare Bar Pro by Barco is a premium, carbon-neutral, all-in-one video bar with advanced features that enable engaging, effortless wireless conferencing in small meeting rooms and huddle spaces with any video conferencing platform. The well suited video bar, with its advanced AV capabilities (dual screen, 4K

content sharing) and interactive features (touchback, annotation, blackboarding), enables crystal-clear audio, sharp views, and enhanced interactivity for meetings where all participants feel heard and seen. This solution offers unparalleled flexibility, allowing IT Managers to easily equip their meeting rooms with this powerful and compelling AV solution.

30. BenQ Board Pro RP04 Interactive Display

The EDLA-certified BenQ Board Pro RP04, a premium model in interactive panels category, provides the best possible classroom experience by combining the power of BenQ software and hardware with official Google services for education. The built-in EZWrite 6 software allows users to more than just write and draw.

Moreover, unlimited canvas expansion capability, division of multiple sections, various templates and measuring tools, and live camera feed, give users the opportunity to streamline everything required in a learning environment.

31. Lightware Taurus TPN UC-over-IP System

Taurus TPN devices are designed with energy efficiency in mind by integrating features like Power-over-Ethernet (PoE) to streamline power delivery and reduce the need for additional equipment. This approach minimizes energy usage while ensuring seamless functionality, making them a sustainable choice for modern AV systems. Ideal for professional spaces, Taurus TPN, world's first

UC-over-IP system, offers robust connectivity and superior video distribution, making it a perfect fit for conference rooms, control centres, and larger boardrooms needing a UC-over-IP solution. Users can do so much more now with Lightware's latest solution creating an ecosystem of devices that are networked.

32. AET's AT Quantum MIP LED Displays

The AT Quantum MIP Series sets a new benchmark in micro-pitch LED displays, featuring a 55" ultra-fine 0.63mm pixel pitch with MicroLED-in-package (MIP) technology for unparalleled clarity. Its third-generation 3-in-one architecture integrates the power supply, receiving card, and HUB board, ensuring seamless operation and enhanced reliability. Designed for versatility, it supports HDMI, HDBaseT, Fiber,

MPO, and IP connectivity, enabling true plug-and-play installation. Not only that, at just 28 mm thick and 18.5 kg with VESA mount compatibility, it delivers ultra-thin elegance with energy-efficient common cathode technology – a game-changer in next-gen display solutions.
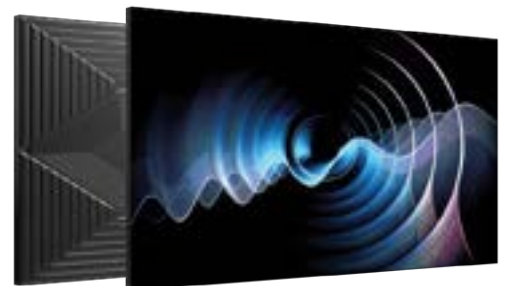
33. Absen's Saturn (SA) LED Displays

With a brightness of up to 1500nits, 16-bit grayscale, and a 7680Hz refresh rate, Absen's Saturn (SA) series stands unmatched

in display quality, captivating audience with its strikingly vivid images and exceptional performance. The SA series can be installed as flat displays, curved displays, and ceiling displays with the adjustable angle configurations from outer -2.5° to inner +2.5°. Not only that, but SA series also offer an ideal balance between lightweight design and robust structure. With an advanced composite design, each SA panel weighs only 19 kg/㎡ and can be mounted at heights of up to 10 meters for hanging installations and up to 5 metres for stacking installations.

34. Q-SYS VisionSuite Software

Advancing meeting experiences for remote participants, Q-SYS VisionSuite uses multimodal AI with intelligent audio and video capabilities to ensure the active speaker is always visible and audible. The vision-driven room automation platform allows users to easily integrate advanced features into high-impact spaces. From intelligent presenter tracking to vision control or sound-based camera switching, the software provides access to everything a user needs for an engaging hybrid experience.

35. Data Video's SE-2600MU HD Video Switcher

The SE-2600MU HD Video Switcher by Data Video is a versatile and powerful 8-input live production switcher with 1U rack-mounted design, ideal for professional AV environments such as corporate rooms, conference rooms, and school classrooms. Supporting 1080p/60 (3G) HD video resolution, it offers a mix of 4x 3G-SDI and 4x HDMI inputs, along with 6 outputs including 3x 3G-SDI and 3x HDMI. Users can connect through the network or

RS-232 and remotely operate the SE-2600MU with full functionality, providing flexibility and convenience in different professional settings.

36. Wyrestorm MX-1007-HYB Switchers

The MX-1007-HYB by Wyrestorm is the next generation of matrix switchers featuring seamless 4K60Hz switching for crystal-clear vi-

suals and uninterrupted enjoyment. The device simplifies users' setup with HDBT technology, offering long-distance audio and video transmission over a single cable for a clutter-free presentations, lectures, and entertainment. With advanced features to embrace scalability with NetworkHD 500 and elevate audio with integrated Dante technology and a 100- Watt Amplifier with DSP, this AV solution ensures a powerful, immersive auditory experience in high end educational or corporate environments.

37. Datapath VSNMini 300 Video Wall Controller

The VSNMini 300 by Datapath provides a modern, compact solution for powering multi-output video walls for meeting rooms, retail environments, and small-scale control room installations. With three PCIe slots, the VSNMini 300 can be preconfigured with Datapath image graphics, vision capture, and SQX IP decode cards for specific project requirements. Designed with a space conscious mindset, this perfection-driven video wall controller is dedicated to the modern operator workstation environment.

38. Aten 4 x 2 True 4K HDMI Presentation Switch with Multi View – VP2420

With the ATEN VP2420, 4x2 True 4K HDMI Presentation Switch, users can experience seamless collaboration and efficient decision-making. Its smart layout adjustment maintains a seamless flow as sources connect or disconnect, keeping meetings smooth and uninterrupted. The VP2420 supports versatile audio setups with options for audio embedding or separate extraction. Whether used

standalone or integrated with control systems, it offers easy source control and future scalability with up to 4 presentation switches cascaded, making every presentation captivating, smooth, and efficient.

39. Da-Lite Myriad Electric Screen

Myriad is a ceiling recessed, wall and ceiling mounted electric screen system, ideal for large meeting spaces, conference rooms, lecture halls, large high-end classrooms, houses of worship, and hotel ballrooms. Available with 16' (5 m) of SightLine cable drop,
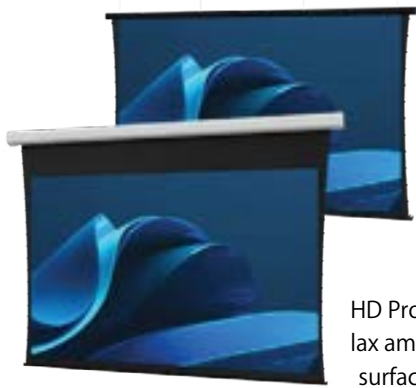
which gives the impression of a floating screen, Myriad is offered in sizes from 14'-16' (4-5 m) wide in 16:9 HDTV and 16:10 wide formats. Furthermore, this AV solution is available with HD Progressive 16K ready and parallax ambient light rejection screen surfaces elegantly integrating the space with easy maintenance.

40. Owl Labs Meeting Owl 4+ Video Conferencing Camera

For smaller and more engaging hybrid experiences, the Meeting Owl 4+ is the perfect fit required to create an engaging 360° experience. The video conferencing camera is easier to set up for anyone on the team, starting meetings with confidence. The device's features only get better with routine upgrades made to its operating system at no cost to the users. Standing as one of the smartest cameras in the pro AV market and aesthetically appealing, Owl 4+ offers enhanced viewing experience with 4K UHD resolution and total in-room coverage.

41. Planar Luminate Ultra W Video Wall Displays

Planar Luminate Ultra W Series MicroLED video wall displays are designed to bring high-detail imagery and video to outdoor environments with close viewing distances. Their 16:9 aspect ratio is ideal for full HD and 4K cinema and sports media, while fine pixel pitch supports comfortable viewing from as close as 8 feet. High brightness ensures visibility even in direct sunlight, and waterproof Glue-On-Board (GOB) technology withstands harsh weather, easily facilitating outdoor applications including residential, informational signage, retail, hospitality, sports and entertainment venues. Excelling the on-demand viewing experiences, this fine pixel pitch video wall commits to reduce time, cost, and complexity of the AV design.

42. A&T Air Pro Wireless Microphone

Adhering to its vision of providing precision, performance, and innovation, A&T Video Networks introduced Air Pro wireless microphone, redefining how professionals capture, mix, and deliver high-quality content. Air Pro uses A&T's unique series IV 2.4GHz digital wireless transmission technology to deliver unmatched

audio quality for seamless video production and superior audio clarity with a 100-meter range. Designed with professionals, content producers, and performers in mind, the device offers dependable connectivity together with high audio fidelity and low latency. This powerful wireless microphone allows users to experience effortless collaboration, flawless transitions, and studio-grade output in any professional setting.

43. Aurora Multimedia RXT-4WM Touch Panel Control System

Aurora's RXT-4WM is the 4" ReAX JavaScript based Touch Panel Control System, ideal for conference rooms, educational facilities, hospitality, digital signages, and more. The RXT-4 has a beautiful 480 x 480 1:1 aspect ratio touch screen with 160° viewing and room status lighting in just about any colour combination. It offers control ports (2 RS-232, 2 IR, 2 Digital I/O, 2 Relay) and is designed to mount a 2 Gang or European style electrical box. Captivating every room with its presence, RXT-4WM boasts of a 1-watt speaker,

stereo digital microphone, proximity sensor, and ambient light sensor. Furthermore, its internal web server allows control from remote device like cell phones and computers.

44. Powersoft Unica 5K4

Powersoft's Unica series represent the next-generation cloud-based amplifier platform designed to deliver unmatched performance and flexibility. It's latest 5K4 model features 4x 1250 W power per channel with a total power of 5000 W. Unica series not only achieves an unparalleled signal-to-noise ratio, promising pristine audio quality in every situation but also combines high-quality amplification with advanced DSP capabilities, providing users with

exceptional sound reproduction and control. Elevating overall audio experience by leveraging its state-of-the-art technology and intuitive user interface, Unica series allows audio professionals to optimize sound quality in houses of worship, stadia, theme parks, hotels, and resorts.

45. Marantz MODEL 10 Amplifiers

The Marantz MODEL 10 sets a new benchmark in amplifier de-

sign, featuring a newly developed dual-mono symmetrical amplifier topology that makes it one of the most powerful and highest-performing Marantz amplifiers in the pro AV market. Encased in a copper-plated, triple-layered chassis with a brushed aluminium front, it combines durability with sophisticated aesthetics. An illuminated mesh cover grille reveals the internal circuit boards, high-quality components, and a specially designed transformer case, highlighting the meticulous engineering within. Reflecting Marantz's design heritage, MODEL 10 includes a signature porthole housing an HD TFT colour display for volume and input selection, along with a digital level meter that emulates the behaviour of vintage analogue meters.

46. AMX SVSI N3300 Series Encoders and Decoders

AMX SVSI N3300 series encoders and decoders deliver the highest quality 4K60 H.26x and Dante AV-H video content at the lowest bandwidth to extend the reach of SVSI 4K60 networked AV solutions to the WAN for streaming, video to desktop, digital signage, set-top boxes, or mobile device applications. High quality

streaming through N3300 series delivers excellent video quality for transmitting both video and detailed content within classrooms, meeting spaces, casinos, NOCs, and other venues. Its remarkable design flexibility and compatible options for remote viewing or recording, further allow users to enjoy seamless experiences.

47. Unilumin USK Outdoor Displays

Unilumin's latest USK outdoor displays ensure delicate and stunning visual performance with high flexibility, ultra-high stability, and environmentally friendly features. Designed to take over stadiums, outdoor live shows, commercial centres, or even bus stations, this high-end outdoor LED display offers ultra clear image with 7680 refresh rate and ultra-wide viewing angle that can be perfectly rendered at any time. Additional features like IP69K protection for superior waterproof performance, efficient heat dissipation design, and hassle-free front and rear maintenance, power-pack the displays with efficiency and stability.

48. Vaddio Venture VideoBAR For Video Conferencing

Vaddio's remarkable VideoBAR, its first all-in-one 4K video conferencing solution brings exceptional audio and video quality with an ultra-high-definition image sensor and advanced tracking technology for users' seamless meeting experiences. Built to take over small and large meeting spaces efficiently, this video conferencing solution is designed with 5x digital zoom, 110° horizontal field of

view, premium audio with built-in Hi-Fi speaker system and integrated 6-element beamforming microphone array, and so much more. Venture is captivating the pro AV market with its advanced tracking technology options that frame the active speaker.

49. Atlona AT-OME-CS31-SA Presentation and Collaboration System

Atlona's AT-OME-CS31-SA is a groundbreaking full-featured AV solution for classrooms and meeting rooms with three-input switcher for HDMI signals, 50-watt mixer amplifier, and USB 3.0

hub. With specialized classroom capabilities and flexible control, this industry-leading presentation and collaboration system has also raised the bar with its trigger display powering when users connect to the switcher or when they enter the room with an occupancy sensor.

50. Yealink MVC S40

The dual-eye camera system, Yealink's MVC S40 ensures exceptional image clarity for all small to medium sized meeting rooms. With lenses directed toward each side of the participants, the impressive camera system offers a superior viewing angle, while

its 48MP cameras effortlessly cover long distances, delivering high-resolution images even at extended distances. The on-device IntelliFocus feature displays real-time close-up shots of the recent speakers, enabling users to stay focused on what truly matters.

In picture (L to R): Prashant Govindan, Kuldip Kamat, Rhythm Arora, and Kelvin Ashby-King from AV-ICN Conference 2024

FUTURE OF PRO AV MANAGED SERVICES IN INDIA

*Leading one of the fastest-expanding economies around the world, pioneering systems integrators, AV consultants, and AV service providers are working to transform the pro AV landscape in India. In this session, moderator - **Prashant Govindan**, Director – India, Generation AV along with panellists **Kuldip Kamat**, Managing Director, Allwave-AV Systems, **Kelvin Ashby-King**, Principal Consultant, Clarity Consulting, and **Rhythm Arora**, Chief Technical Officer, Qubix Technologies, share insights on pro AV services around the country. Engaging readers with a deep dive into the pro AV world, this excerpt from **AV-ICN Conference and Seminar** held at **AV-ICN Expo 2024** discusses the key purpose of pro AV in India and its future in the coming years.*

Beginning the session with the simplest question for even the non-technical audience to understand, **Prashant Govindan** opens the discussion: "What is a manage service and how does pro AV work with managed services?"

Addressing the proposed question, **Kuldip Kamat** states, "We've kind of dabbled in this space ever since the pandemic and have been trying to figure out how technology could change globally. Normally integrators speck for a project and quote based on price or various other factors. However, there is very little thought given to the post-sales service. So, the way I would design a managed service in pro AV space will be based on how you look at the life cycle of the entire project and the refresh timeline. A managed service contract could be along the lines of a leased service, which includes everything like replacement firmware upgrades."

He adds, "A managed service contract

by definition is something which looks at not just the price and the delivery but the entire up time, product and, project duration of the entire corporate real estate facility from a pro AV perspective. Moreover, speaking of managed services in pro AV, we also have to focus on security, especially in environments like advanced meeting spaces."

Adding to the thoughts of Kamat at the session, Govindan further states, "Security is an essential aspect today and it's important to secure meeting spaces and corporate communications. In fact, it's also necessary to ensure that PA Systems and conference systems do not permeate into someone else's space, leading to invasion of privacy."

AV in Hospitality

Moving the discussion forward, Govindan puts another question forward to **Rhythm Arora**, "Could you shed some light on the hospitality space booming in India currently and how does a managed AV service assists in that space?"

Rhythm Arora starts by saying, "We were working on a managed service platform last year and post-Covid there was a lot of buzz around it. So, we tried to position up-time as a service model, which means we were not selling the equipment but the up-time. Secondly, we realised that it should be sort of a DSITC system as we cannot provide a managed service on a customers' BOQ. We need to use our BOQ, create the design, and maintain the entire inventory as well. However, understanding all the challenges and requirements in different industries, and coming across various observations, we witnessed that hospitality customers were very excited to deploy projectors, screens, etc. that have a faster refresh cycle."

Commoditisation or Standardisation of AV

The session moves forward with another relevant question directed towards **Kelvin Ashby-King**, "Do you see the advancing role of managed services as a paradigm shift in the business model and if yes, is that a good thing or are we inching towards the commoditisation of AV?"

Kelvin replies, "I think Covid-19 brought some opportunities for the pro AV industry. I remember when the concept of a meet-

ing room in a box came out but failed dismally at the time. However, keeping the current transitions in mind, I think we're heading towards the phase where brands like **Crestron** or **Extron** are trying to provide users with the entire AV solution. Therefore, I would say, it has become a commodity and certainly, that is for general meeting rooms, smaller spaces, or huddle rooms."

Kelvin also puts an argument forward on the definition of managed service at the session, "As Kuldip and Rhythm spoke about AMC and service contracts earlier, I think a managed service is where the complete responsibility including network these days has to sit in one person's hands to deliver everything from the top to the end. This is especially happening in midsize companies that don't have large IT departments or the in-house skill. This brings a huge opportunity to offer a design to operate services or as we define it, 'managed services'." He adds, "Corporate AV is transforming with large companies now having their own AV team. Therefore, I think, large scale managed services have still a long way to go in the top end sector. In hospitality, we're going to see a complete dropout of fit of hotels."

Sharing his perspective on the discussion, Kamat argues, "Instead of commoditisation, I would use the word standardisation because we've been fortunate enough as the country to be an arm for many global rollouts like that with PSNI Global Alliance. To me, it doesn't seem to be as commoditised as people think it is." He adds, "If we look at it keeping in mind the Indian pro AV market, I think in the coming days there's a lot of growth opportunity for pro AV managed services."

Ashby-King argues, "I think we've had standardisation for years. Today, an IT company can go and buy from **Poly** or **Samsung** and deliver a room about 85 to 90% similar, but it won't be exactly the same."

Kamat agrees, stating, "Speaking from an integrator's perspective, when we did a 400-room project in Hyderabad, it took a lot of planning to deliver state-of-the-art solutions from post design to the execution, and post-sales support. For such projects, it's essential for systems integrators or the IT providers to have an operating model. Without a successful operating model, the concept of a managed service might not have a seven-year or an eight-year window."

Industry's Game-Changing AV Solutions

The advanced technologies and innovative solutions leading the current market are driving the technological changes and the entire industry is getting drawn towards it. Carrying the conversation forward around similar lines, Govindan raises the question for Rhythm, "What's your perception on the technology that's being implemented to enable remote monitoring and remote firmware updates, and how can manufacturers build on this?"

Rhythm replies, "We've been testing a program, which is a combination of API and home-build technology with some hardware wherein every day in the morning, the room restarts and applies self-test. It checks everything where we call the APIs of the UC device, the TV, and everything else. In case, there's a fault, it automatically sends an invite to the calendar, blocks the room so that nobody else can book it for the day, and generates a gate pass for our technicians to get it checked."

Prashant Govindan initiates a very interesting conversation, "Is the industry stepping up its game or are the customers requesting the new wave of technology that we can see today?" To this, Kelvin replies, "I think there is still a long way to go within the AV industry in terms of roles and responsibilities, especially with the change from IT industry and it is really dependent on the management software and the upgrade software from individual manufacturers."

The Role of AI in AV

Speaking of the role of AI in AV, panellists further share ideas on how AI is transforming businesses in the real world. Presenting detailed information on how AI is managing to make our lives easier in terms of an application model, Ashby-King states, "AI can be as simple as continuously looking at echo cancellation and optimizing the echo cancellation with an algorithm for that area. Therefore, AI is going to play a big part in what we're doing, but it will start with small problems."

With the argument raised by Kamat on bespoke AV applications, where software like ChatGPT still require human intelligence to work efficiently and more importantly manage all the manual work, Kelvin continues to comment, "I agree there's

certainly going to be an outcome of AI over time. In fact, the understanding of client expectations or even user experiences are not amongst the things that AI can do at this stage, making it efficient for design only as of now."

Keeping the audience engaged, panellists continue to make spot-on discussions on how human intelligence is still needed to feed the right inputs for AI to generate the right output. Rhythm comments, "I always say, we are in the business where rooms talk to rooms, not people talking to people with AV solutions. I think in our foreseeable future, we will still be connected to the physical world. We will still see customers putting two land ports on each desk in case the WiFi fails."

Skills and Manpower Requirements in AV

Keeping the discussion on human intelligence for AI in mind, Govindan initiates another topic on what kind of people do the integrators and manufacturers look for in the pro AV market, and what key skills are required to be a part of the team. To this,

Rhythm replies, "There is no formal training for AV available. However, it requires around one to two years of experience on floor with the understanding to manage real time challenges."

Kamat continues, "The kind of people we look for, are people with a good attitude. We put communication skills a bit lower on the radar because we try to add team members who are willing to work on site as the pro AV industry demands physical presence. In fact, India is relatively young as an economy. Some seven to eight years before that, post liberalization, pro AV industry was vague in terms of future possibilities."

Ashby-King adds to the discussion, stating, "Topping all these requirements, I also look for passion and curiosity to work in the AV industry. I need people who are going to look at problems, find different

solutions, and are committed to taking a problem, owning it to a solution."

Conclusion

Prashant Govindan carries the discussion forward with more relevant and engaging questions about traditional AV integration in the digital age. Moreover, the panellists draw their closing comments by sharing advice to the overall integrated community, how they should evaluate end users' requirements, and so much more.

The session became more engaging and interactive at the end, when the audience got up proposing multiple questions for the panellists. Some questions like – Can AI be a threat for managed services community and more, allowed the panellists to respond actively, directing audience towards the relevance of pro AV in the Indian market.

To watch the entire discussion and dive into the specifics shared at this insightful session by the panelists, visit the link:

https://www.youtube.com/watch?v=cEdquElO8mk&t=489s

AVOCOR A SERIES HERALDS A NEW ERA OF INTERACTIVE DISPLAYS FOR MODERN CLASSROOMS

Avocor, one of the leading providers of innovative collaboration communication solutions, announced the launch of the **A Series**, one of the groundbreaking line of interactive displays designed to transform the modern classroom. The A Series empowers educators by integrating useful and familiar tools to deliver a premium in-person teaching experience, as well as seamless connections that facilitate hybrid and remote learning.

The A Series empowers educators with full access to the Google Play Store, allowing them to leverage cloud-based apps they trust, such as Google

Classroom, Jamboard, and interactive learning platforms. This integration fosters a dynamic and personalised learning experience, enabling teachers to seamlessly incorporate their preferred tools into lessons. Furthermore, the A Series

Avocor A Series bring modern cloud-based technology into the classroom with Google Play Store access, secure NFC login, and exceptional touch responsiveness

features a detachable 4K camera with noise reduction and auto-adjustment capabilities. This innovative feature enables crystal-clear video conferencing, high-quality classroom recordings, and seamless remote participation, bridging the gap between in-person and remote learners.

The A Series is also built with premium touch responsiveness, ensuring a smooth and accurate writing experience that enhances collaboration and engagement. Coupled with stunning 4K visuals and a powerful 2.1 channel speaker system (including a subwoofer) the A Series delivers an immersive audio-visual experience that captivates students and brings lessons to life.

DEFINING LUXURY IN DISPLAY WITH LOGIC ESTILO LUXE

LOGIC introduces **Estilo Luxe**, a sophisticated evolution in its premium LED display portfolio that seamlessly blends advanced technology, breathtaking visuals, and timeless design. Crafted for discerning users, Estilo Luxe stands as a testament to how luxury and innovation can redefine display experiences.

At the heart of Estilo Luxe is COB (Chip on Board) technology, a breakthrough in LED videowalls. This advanced technology delivers superior visual performance with exceptional brightness, high contrast ratios, and reduced pixel gaps, ensuring crisp, vibrant visuals from every angle. Combined with its deep black substrate, Estilo Luxe enhances contrast and renders rich, life-like colours that captivate viewers, even under challenging

lighting conditions.

Designed to simplify user experience, Estilo Luxe features a built-in SoC (System on Chip) that eliminates the need for external devices and complex configurations. The integrated system offers seamless content management, plug-and-play operation, and effortless switching between sources, making it ideal for users seeking sophistication

Logic Estilo Luxe COB (Chip on Board) displays for superior visual performance

without sacrificing simplicity.

With its ultra-slim profile of just 31mm and minimalist design, Estilo Luxe integrates effortlessly into upscale environments, whether mounted on walls or displayed on premium floor stands. Its clean, elegant aesthetic makes it an ideal addition to boardrooms, executive lounges, retail spaces, and luxury interiors. The expansive 170° cinematic viewing angle ensures that every seat in the room offers a perfect view, creating a visually immersive experience for every audience.

Enhancing the audiovisual experience, Estilo Luxe features built-in **30W dual speakers** that deliver rich, immersive sound without the need for external audio systems. The seamless integration of superior visuals and sound creates a multisensory experience, transforming any space into a visual and auditory masterpiece.

CHRISTIE LAUNCHES WORLD'S FIRST HIGH-BRIGHTNESS HYBRID RGB LASER PROJECTOR - SAPPHIRE 4K40-RGBH AT ISE 2025

Christie announced the launch of the **Sapphire 4K40-RGBH projector**, which combines solid-state RGB pure laser illumination with a dual laser phosphor system into the world's first high-brightness hybrid RGB laser projector. With hybrid illumination, users have a projector that provides maximum flexibility. Sapphire is designed for any 2D application, front or rear projection, all active and passive 3D formats, and any screen type.

The Sapphire 4K40-RGBH delivers vibrant DCI-P3 color, 36,400 lumens of brightness, native 4K clarity in 2D and 3D on all screen types, and front and rear projection. It also offers high frame rate options, from 4K at 120 Hz to 2K resolution at 480 Hz.

The Sapphire 4K40-RGBH delivers vibrant DCI-P3 colour and 36,400 lumens of brightness

Sapphire sets a new standard with its exclusive Infitec color comb 3D solution. Unlike traditional laser phosphor projectors, Sapphire offers superior light efficiency and a wider color gamut for brighter, more immersive 3D experiences

making it the ideal choice for 3D dark rides, other media-based attractions, and visualization powerwalls.

"With its unique hybrid illumination architecture, the Sapphire 4K40-RGBH is a flexible solution for 2D, and 3D front and rear projection applications," says **Larry Paul**, Executive Director of Technology and Custom Solutions, Christie. "We're excited to introduce this projector at ISE 2025, and we invite attendees to experience the brilliance of Sapphire in person."

The Sapphire 4K40-RGBH hybrid RGB laser projector is designed to deliver best-in-class experiences for applications including theme park attractions, live events, rental and staging, and visualization.

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JBL PROFESSIONAL INTRODUCES CONTROL 400... *Continued from (AV Communication) page 10*

improve installation repeatability and safety while reducing installation time. Terminal covers provide top and side cable entry ports and can be secured without tools thanks to captive handscrews. The captive dogear design is extremely reliable and works with a wide range of ceiling thicknesses. Additionally, all models include transformers to support both 70V/100V and low

impedance applications.

"When designing the new Control 400 Series, we really looked at what's worked well with our Control 20 Series over its many years of dedicated service to our users," said Phil Scobee, Director of Installed Audio, HARMAN Professional Solutions. "We talked to our consultant, designer, and integrator community to gain their

valued feedback. Then we asked our engineering team to translate that feedback to as many enhancements as possible to improve both the listening experience but also improve the installation process wherever possible. The result is a new series of ceiling speakers that we couldn't be prouder to introduce and get out into the market."

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KRAMER INTRODUCES NEW POE-POWERED DANTE... *Continued from (AV Communication) page 10*

evident in the speakers' sleek industrial design and intuitive software. Features like front-access wiring for ceiling speakers and centralized speaker utility software simplify installation, setup, and troubleshooting, saving time while delivering consistent, high-quality results.

The new speakers are part of Kramer's broader audio portfolio, which also

includes DSPs and amplifiers, offering professionals a complete and integrated solution for diverse audio needs. The speaker product range features wall-mounted, ceiling, and pendant models in various form factors, designed to suit varied environments.

"ISE 2025 represents an exciting opportunity for Kramer to demonstrate the strength of our portfolio and the

impact of our strategic investments," said **Gilad Yron**, CEO of Kramer. "From our extensive AVoIP solutions and the success of the Panta Rhei platform to our innovative collaboration technologies, we're proud to lead the way in AV/IT convergence and empower our partners with solutions that redefine the possibilities of audio-visual technology."

CAVS (CERTIFIED AV SPECIALIST) TRAINING BENGALURU CONCLUDES WITH RESOUNDING SUCCESS

EMPHASISES NEED FOR INDIAN AV INDUSTRY IDENTITY AND SELF-SUFFICIENCY

Bengaluru, (February) - The 6th edition of **CAVS (Certified AV Specialist)** course, organized by **AV-ICN**, successfully concluded its Bengaluru edition from **February 13-15, 2025**. The event witnessed an overwhelming response from the AV industry professionals in Bengaluru, with 46 participants from leading AV companies and organizations like - **Transcon IT Solutions, 4 Squares Corporation, Ideas Ahead AV Solutions Pvt Ltd, Salient Tech,**

in 2019, had completed five successful editions before the Bengaluru edition, with three being organised in Mumbai and one in Ahmedabad. The CAVS certification is a significant step towards galvanizing professionalism in the AV industry and is designed to replace the traditional 'electrician' approach with a more specialized and qualified integrator, creating a talent pool with specific learning for AV integration.

principles, standards, protocols, and best practices.

The training program covered three comprehensive modules: **AUDIO**, led by **Narendra Naidu** of Rhino Engineers Pvt Ltd, focusing on soundwaves, signals, and acoustics, etc.; **VIDEO**, led by **Arif Patil** of **Eyte Technologies Pvt. Ltd.**, exploring aspect ratios, resolutions, and transmission media; and **IT & NETWORKING**, led by **Satyanarayana Reddy** of **The Siemon**

Narendra Naidu, Chairman & MD, Rhino Engineers with Anil Chopra, Founding Director of CAVS

Arif Patil - Principal Consultant, EYTE Technologies on Day 2 of the training

Auro AV Tech, Clarity Consultant, Online Instruments, SMARTOMATION, Awan India, Infosys and many more, registering and attending the certification program.

The CAVS training program, launched

The CAVS Bengaluru edition was held in the heart of Bengaluru at **St. Marks Hotel** in Shanthala Nagar and featured an expert-led training program, designed to impart comprehensive knowledge of AV

Company, covering network basics, power over Ethernet, and AV over IP and more.

Besides gaining valuable insights and comprehensive knowledge, the participants engaged in interactive sessions and

Participants of the 6th edition of CAVS Bengaluru enhancing their skills in the AV industry

networking opportunities with industry peers.

"We are thrilled with the success of CAVS Bengaluru," said **Anil Chopra**, Founding Director, of the CAVS programme. "The program's objective is to enhance the skills and knowledge of AV professionals, and we are proud to have contributed to the growth of the AV industry in Bengaluru."

Anil Chopra welcomed participants to the CAVS training program, emphasizing the need for a certified course "in India, for India". He acknowledged Narendra Naidu, Arif Patil and Satyanarayan Reddy's support, highlighting their commitment to the program.

Chopra emphasized that the Indian AV industry requires an identity, and CAVS is the new identity. He encouraged participants to carry the CAVS certification with pride and consider the certification as a gateway to the Indian AV industry.

The speech also focused on the importance of Indian AV manufacturing, emphasizing the need to create products, brands, and manufacturing in India for AV

products. Chopra encouraged participants to think beyond established companies and focus on Indian AV product design and manufacturing. He cited **Online Instruments' LOGIC**, a company manufacturing displays in India, as an example, and

Srinidhi Mahashetti, Online Instruments receiving the certificate from Satyanarayana Reddy - Techincal Manager India, SAARC

thanked LOGIC for sponsoring the interactive display for CAVS.

He concluded by thanking participants for their time, investment and sacrifice, reiterating that CAVS is a crucial step in giving the Indian AV industry its own identity. The speech ended with a call to action, emphasizing the need for Indian

manufacturing and self-sufficiency in the AV industry.

Narendra Naidu, Chairman & Managing Director, Rhino Engineers Pvt. Ltd, expressed his delight at the success of the Bengaluru edition. "We are committed to supporting AV education initiatives, and we are happy to see the CAVS program gaining momentum across India."

The CAVS certification program has already benefited 300 registrants in its 6 editions, with many more expected to join the upcoming editions. With the success of CAVS Bengaluru, AV-ICN is poised to take the program to more cities across India like Hyderabad and Delhi, furthering its mission to enhance the skills and knowledge of AV professionals nationwide.

With the CAVS training program, the AV-ICN expo reaffirms its commitment to promoting excellence and professionalism in the AV industry.

For more information about CAVS and upcoming editions, please visit www.av-icnx.com

AV INDUSTRY

SDVOE ALLIANCE WELCOMES AVPRO EDGE AS STEERING MEMBER

The **SDVoE Alliance**, a nonprofit consortium of technology providers collaborating to standardize the adoption of Ethernet to transport AV signals in professional AV environments, announced that **AVPro Edge** has elevated its membership status to become a steering member of the SDVoE Alliance. As a result, AVPro Edge joins the SDVoE Alliance Board of Directors, empowering them to play a more influential role in the organization's strategic direction.

"The SDVoE Alliance is thrilled to welcome AVPro Edge as a steering member," said **Stephane Tremblay**, President of the SDVoE Alliance. "Their expanded involvement strengthens the Alliance's mission to provide a standardised platform that delivers reliable, cost-effective AV solutions, while advancing the industry's shift toward more networked systems."

AVPro Edge joined the SDVoE Alliance

in early 2023 and after recognising the extensive benefits and collaborative opportunities, has now opted to expand its commitment to a steering-level membership. This move highlights the growth of the SDVoE Alliance as it continues to

reshape the AV industry by advocating for a unified, standards-based architecture of AV-over-IP devices.

AVPro Edge's MXNet 10G, which leverages SDVoE technology, is designed to tackle the demands of high-end commercial and residential projects. The MXNet 10G operates over a robust 10Gbps Ethernet network, seamlessly bridging endpoints with a comprehen-

sive software platform that integrates audio, video, USB, KVM and control signals. By utilizing SDVoE's ASIC-based architecture, MXNet 10G unifies multiple functionalities into a streamlined form factor.

AVPro Edge's expansion to a steering member aligns with the company's commitment to advancing the convergence of AV and IT. As **Kevin Wang**, Vice President of the MXnet Systems Group at AVPro Global, explained, "We are thrilled to join the SDVoE Alliance as a Steering Member. With the growing convergence of AV and IT, AV-over-IP has become a widely adopted technology across the systems integration industry. AVPro will leverage the engineering experience we have accrued over the past decade to drive innovation, helping to make AV systems more digital, networked, and intelligent, ultimately benefiting our customers."

YAMAHA AND CRESTRON COLLABORATE TO DELIVER ENHANCED HYBRID MEETINGS

Yamaha announced a new collaboration with **Crestron** to deliver the most natural, high quality hybrid meeting experience. The solution will pair Yamaha's **ADECIA RM-CG ceiling array microphone** with Crestron 1 Beyond intelligent cameras and the **Automate VX multi-camera** speaker tracking solution.

Both companies are committed to delivering the best hybrid meeting technology for conferencing, lectures, and any situation where people in different locations need to seamlessly interact. Bringing together their high-end audio and visual technologies is an obvious way to achieve this.

The Yamaha RM-CG ceiling array microphone is equipped with multibeam tracking, capable of following the speech of up to four different speakers simultaneously. The beams automati-

cally detect and track the direction of the sound source simply by someone in the room talking, delivering clear, highquality voice reproduction for remote

participants. With multiple mounting options, the RM-CG can be installed in a wide range of environments.

Crestron Automate VX employs voice-activated switching to automatically frame speakers and switch camera sources, orchestrating what remote participants users see on screen. The solution works with multiple cam-

eras around the room and with the 1 Beyond lineup, the image is captured in high-resolution and up to 20x for the best picture. In-person contributors never have to think about where to look when speaking, while remote participants always enjoy a clear view of everyone in the room. This results in a better user experience in which non-verbal cues like eye contact, gestures, and reactions are always visible, making meetings feel more naturally collaborative.

The combination of these technologies delivers an impactful sound and video experience, even in large conference rooms, multi-purpose venues and other challenging spaces. It optimizes

Continued on page 41

ROE VISUAL EXPANDS TEAM WITH CHRISTIAN CZIMNY

ROE Visual announced the addition of seasoned LED professional, **Christian Czimny**, to its global team. Christian Czimny joins as Global Product Director Fixed Install with his extensive experience in LED display technology in several market segments.

Christian's appointment marks a significant milestone for ROE Visual. As the Global Product Director, he will spearhead product development initiatives, driving ROE Visual to continue to set industry benchmarks with cutting-edge solutions.

Christian Czimny, a respected veteran in the LED display industry, brings decades of expertise honed through his years at Lang

and other LED manufacturers. With 26 years in the audiovisual sector and over 20 years dedicated to LED technology, Christian has cultivated a deep understanding of LED applications, starting from

In picture: Steven Embregts, Product Director Europe and Christian Czimny, Global Product Director Fixed Install

dry-hire rentals and evolving into fixed installations. His journey includes working on the client side, mastering the latest trends in LED technology, and collaborating with global manufacturers. Being a team player at heart and having extensive experience working alongside Chinese partners, Christian is poised to contribute significantly to ROE Visual's innovative projects.

"I'm thrilled to join ROE Visual and take on this exciting new challenge. ROE is renowned for being at the forefront of innovation in LED technology. Moving on in my career, this is a great challenge for me, and I'm proud to become part of this technology-leading team", says Christian.

KRAMER ANNOUNCES LEADERSHIP TRANSITION IN APAC REGION

Kramer, one of the global leaders in audiovisual experiences, announced an exciting leadership transition in its APAC region. Effective January 15th, 2025, **Bharath Kumar** assumed the role of President, Kramer APAC, succeeding **Marc A. Remond**, who stepped down from his position.

Bharath Kumar, a 19-year veteran of Kramer, brings a wealth of experience and industry expertise to this pivotal role. He has been instrumental in driving Kramer's growth and market presence, including establishing Kramer India, managing global accounts, and serving as APAC VP of Sales. A former member of AVIXA's Board of Directors, Bharath is a recognized leader and highly respected figure in the AV

industry. His deep understanding of Kramer's business and strong relationships across the region ensure seamless continuity and a robust foundation for future growth.

Marc A. Remond has made significant contributions during his tenure, including establishing Kramer's new regional headquarters in APAC and fostering strong partnerships in the market.

Gilad Yron, CEO of Kramer, shared his thoughts on the transition, "As we look ahead, I am confident that Bharath's

Bharath Kumar, President, Kramer APAC

extensive experience, industry leadership, and strategic vision will further elevate Kramer's presence and impact in this critical region. At the same time, we are grateful to Marc for his leadership and the strong foundation he has built for Kramer's success in APAC."

This leadership transition underscores Kramer's commitment to growth and excellence, ensuring the delivery of cutting-edge AV solutions and exceptional value to partners and customers across APAC and beyond.

To share more interesting industry insights with the AV-ICN Expo Magazine team,

Contact us at: Ritika Pandey | Email: ritika.pandey@hyve.group

REDEFINING SHOPPING MALL FAÇADE WITH **XTREME MEDIA'S** EARTH SERIES LED DISPLAYS

Shopping malls are constantly seeking ways to attract more foot traffic due to the rise in competitive retail environment with regards to the latest advancements in digital displays. Brands are in big way allowing businesses to communicate offers, relevant content, and promotions to visitors, creating an engaging and dynamic shopping experience. Aligning its digital approach with this trend, **Xtreme Media** *provides innovative solution to an Indian shopping mall captivating its visitors with LED displays.*

Dedicated to redefining the mall's outdoor façade by going digital, the client turned to Xtreme Media for its cutting-edge LED display solutions bringing their vision to life.

The client wanted to do something on a larger scale that would promote various in-store offerings on shopping mall's outdoor façade. However, this project did not just require an LED display solution that would serve as a major attraction, but also a visually compelling set up that would stand out.
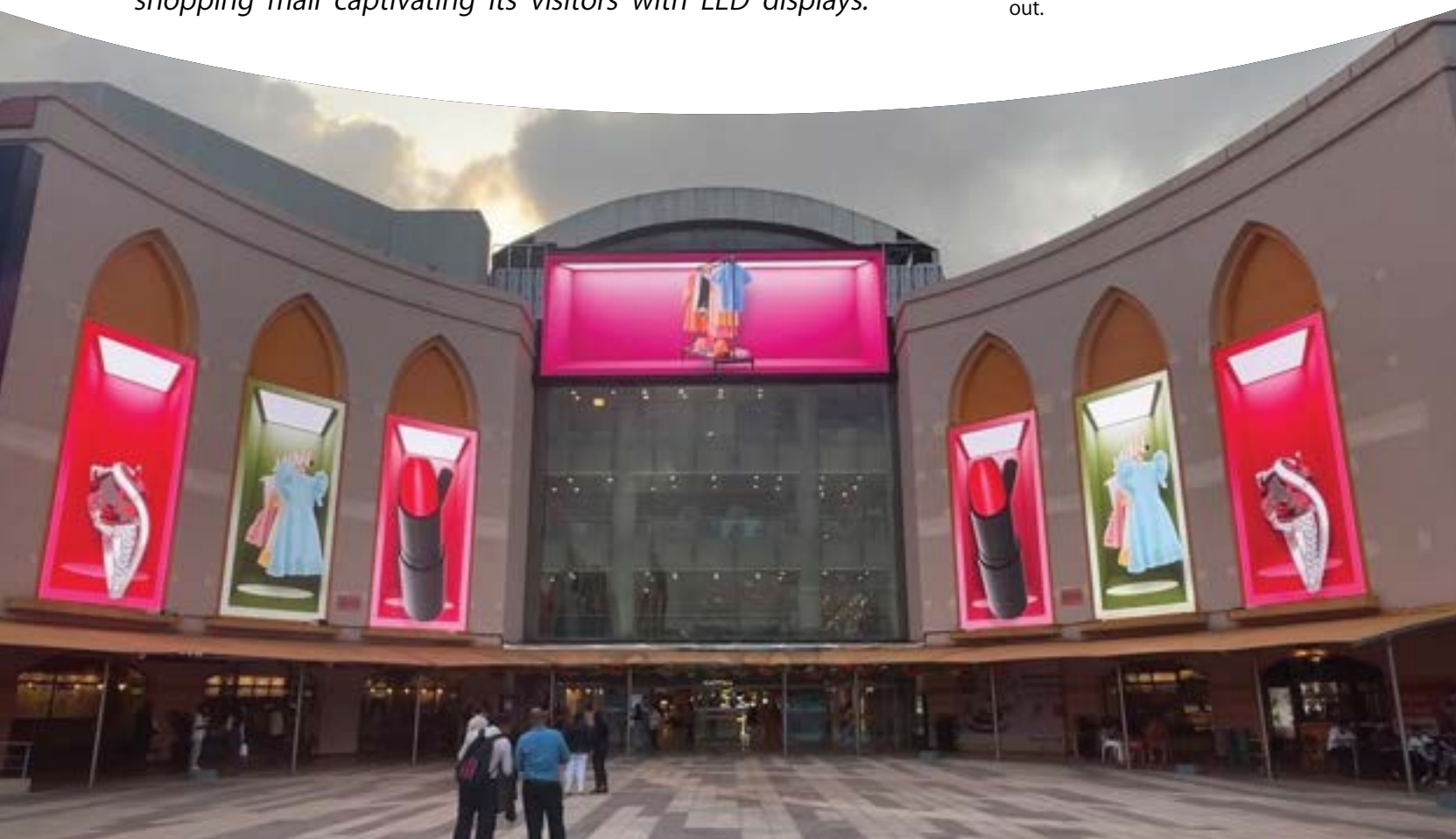
Xtreme Media highlights its engineering expertise with the installation of its Earth Series LED displays at the shopping mall

REQUIREMENTS OF THE PROJECT

The project required seamless installation of digital displays into the existing architecture of the mall. Therefore, Xtreme Media thoroughly went through the client's requirements and proposed installing LED Displays from Earth Series, an ideal range designed for outdoor environments.

These outdoor LED displays suggested by the brand met the needs for the mall's outdoor façade, offering high durability, superior brightness and energy efficiency. Moreover, the shopping mall can display different offers and promotions in a dynamic and engaging manner due to the content playing on these screens.

As informed by the brand, the choice of Earth series was also driven by the demands of the Indian weather, considering the factors such as dust and rain as these could impact the performance of the outdoor setting.

CHALLENGES AND SOLUTIONS

This project proved to be different as it got a lot of technical challenges on the ground. After visiting the site, Xtreme Media's team realized that this assignment was not just to install the screens simply. The existing structure lacked the necessary infrastructure to support the installation of such large LED displays, especially the big screen that needed to be placed at the centre. This required a complex restructuring of the outdoor façade before the installation could begin.

The process required thorough planning, considering the structural integrity, electrical connectivity, and safety considerations. Despite this challenge, Xtreme Media's expert engineers rose to the challenge and provided end-to-end solutions, from the design phase to the execution, ensuring that the screens were completely operational despite the structural constraints. The team ensured seamless connectivity by building the structure at both the ends of the store's façade and successfully took charge of redesigning the façade's structure.

EXPERTISE UTILIZED FOR THE INSTALLATION

Xtreme Media understood that the client wished to give a whole new look at the entire premises and hence, it assigned its engineering experts on site to study the situation and deliver the best outcome.

> *Xtreme Media thoroughly went through the client's requirements and proposed installing LED Displays from Earth Series, an ideal range designed for outdoor environments.*

Furthermore, the following key features of Earth Series made the digital displays installation a perfect solution for the shopping mall:

- **Energy efficiency:** Less power consumption capability of these LED displays makes them environment friendly and cost-effective.
- **Weather resistance:** With an IP66 rating, these outdoor LED displays from Earth series have full protection from harsh Indian weather conditions such as dust and rain, which results in their long-term durability.
- **High brightness and clarity:** These displays also provide higher daytime visibility even in broad sunlight, ensuring that the content remains clear and readable for the viewers.

SUCCESSFUL INSTALLATION OF THE EARTH SERIES

Xtreme Media's team emphasized that the structural modifications and the installation of these screens became an instant highlight, capturing the attention of the shoppers and enhancing the mall's visual appeal in turn. The results exceeded client's expectations as the vibrant and eye-catching visuals on the 7 outdoor LED displays from Earth series increased foot traffic and attracted more visitors to the mall. The client was most impressed with Xtreme Media's commitment to quality and the expertise with which the entire process from design to installation took place. The successful installation of Earth Series LED displays stands as a testament to the brand's role in redefining how shopping malls engage with their visitors.

BIAMP SOUND MASKING ENHANCES PRODUCTIVITY AND PRIVACY FOR THE CHAMBERLIN GROUP'S ST. LOUIS OFFICE

Biamp, one of the leading suppliers of professional audiovisual solutions, announced that **The Chamberlin Group**, a financial advisory firm based in St. Louis, Missouri, has enhanced its new office space with the **Cambridge Qt X 300** sound masking solution from Biamp. Designed to balance collaboration and privacy, this innovative technology creates an environment that supports productivity while safeguarding client confidentiality and compliance.

When planning its move to a new, larger office, The Chamberlin Group sought a solution to address the acoustic challenges posed by a modern open floor plan. With an increasing need for focus and privacy, particularly in sensitive financial discussions, the firm turned to sound masking to ensure the space met its dual goals of collaboration and confidentiality.

The Chamberlin Group partnered with St. Louis-based Callisto Communications to design and implement the solution. The Qt X 300, paired with standard emitters, provides uniform sound masking coverage

Trusted Financial Advisory Firm Selects Biamp's Cambridge Qt X 300 Sound Masking Solution for Its new, larger modern workspace

across open work areas, private offices, and meeting rooms. By subtly increasing ambient sound, the system reduces distractions and masks conversations, ensuring sensitive information remains confidential.

The impact of the Qt X 300 installation was immediate and significant. Employees experienced fewer distractions, enabling

them to concentrate on complex financial tasks. Confidential discussions were securely masked, reinforcing trust with clients. The Qt X 300 system's adaptability ensures seamless integration with future office expansions. The system's unobtrusive design blends effortlessly into the office environment.

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SAR BUILDCON TRANSFORMS 50 BFSI VENUES WITH CUTTING-EDGE LEDS

SAR BUILDCON successfully installed products at 50 locations across the BFSI sector in India including Himachal Pradesh, Punjab, Haryana, Rajasthan, Delhi, Madhya Pradesh, Jharkhand, Gujarat, Maharashtra, Goa, Karnataka, and Tamil Nadu with the average size of each venue being approximately 100 sqft. The project was completed within an impressive timeline of 4 days for each location with multiple teams working tirelessly day and night within a

Sandeep Moitra, Owner, SAR BUILDCON

SAR BUILDCON achieves project installation of 50 sites in two months across BSFI sector in India

span of two months.

The client's brief emphasized the importance of timely completion, quality installation, and cutting-edge AV solutions

for which, SAR BUILDCON's team chose 960x960mm LED panels of 4.4-pixel pitch with aluminium dicast material and TB40 controller.

Challenges and Deployment

Prior to the installation, SAR BUILD-CON's teams conducted a thorough site recce to determine the suitability of the products. During this process, the team observed various site-specific factors, including wall structures (RCC/structural members), wind loads, active LED proportions, and distance from the viewing point. The team also ensured that all necessary licenses were obtained for the installation.

At the time of deployment, the team had to face multiple challenges like bank timings and constraints, convincing landowners and shop owners to mount the active LED, manpower bandwidth and relocation issues, and coordinating with other contractors for concurrent work (ply work, tiles, paint work, etc.). To overcome these challenges, the team employed effective communication, project management, and problem-solving strategies to ensure timely completion and quality delivery.

Execution and Results

SAR BUILDCON worked on a well-planned strategy, to deliver this impressive project by creating a detailed project schedule with start and finish dates (achieved 95% accuracy), managing budgets effectively, prioritizing tasks based on client requirements, and allocating adequate manpower to meet project demands. The client was extremely satisfied with the product installation.

This project stood out for SAR BUILDCON due to its sheer scale, complexity, and tight timeline successfully managing 50 locations across India, end-to-end execution, including design, installation, and commissioning, and most importantly completion within an aggressive timeline of two months. The project showcased the team's capabilities, adaptability, and commitment to delivering high-quality results under challenging circumstances.

YAMAHA AND CRESTRON COLLABORATE... *Continued from (AV INDUSTRY) page 36*

the sound and vision for remote participants as natural as if they are in the same location as the face-to-face participants. Most importantly, the system is very simple for end users to operate.

For installers, the Intelligent Video Room Designer from Crestron allows them to quickly and intuitively configure where to install microphones and cameras to capture the best views with an easy-to-use browser-based tool, with no need for complex commands. The RM-CG can be combined with the Yamaha RM-CR remote conference processor to automatically optimize audio routing between devices and make adjustments to suit the environment with a few simple clicks. Systems can be quickly scaled for a variety of spaces, while Yamaha's Divide/Combine Room Wizard can be used to configure up to four rooms for flexible layouts.

"Hybrid meetings are an essential feature of many businesses, and the desire to make them as natural as possible continues to grow," says **Thomas Hemery**, Senior General Manager at Yamaha Professional Solutions. "By combining the Yamaha RM-CG with Crestron's intelligent video solutions, we can seamlessly integrate high quality audio and video to deliver the most natural experience.

"We aim to develop further high-end hybrid meeting solutions with Crestron and look forward to working more closely together as our partnership evolves."

Providing a mutually engaging conference experience for both in-room and remote participants is essential in order to arrive at collaborative outcomes. It is imperative that the technology that enables these experiences is purpose-built to deliver the best audio and video so that each participant can equally be seen and heard", says **Bob Bavolacco**, Director of Technology Partnerships at Crestron. "Our partnership with Yamaha will ensure that we deliver on these high impact user experiences by providing the best voice activated camera and microphone solutions to make every employee feel like a contributing part of their team, no matter where they are located."

DYNAMICS

By Ritika Pandey

Projection Mapping with AR/VR: AV's Revolution is Here!

Seeking innovational change, the world is transgressing towards captivating new experiences for the audience. Niche segments are benefitting from the change, encouraging AV manufacturers, systems integrators, AV consultants, and other AV professionals to focus on continuous advancement and adoption of AV technologies.

With increasing tourism in India, there's an increase in demand for immersive experiences. Currently, 292 projection mapping tenders are published by various tendering authorities and private companies on Tender Detail website, clearly indicating the rising demands of projection mapping in Tier-I, -II, and -III cities in India. In fact, according to *Modor Intelligence*, "Projection mapping market size is estimated at USD 5.58 billion in 2025, and is expected to reach USD 15.01 billion by 2030, at a CAGR of 21.87% during the forecast period (2025-2030)".

Projection mapping, put in words, is simply wrapping architectural elements, buildings, walls, or landmarks with incredible visual spectacles. It allows visitors to fall into immersive experiences catered by professional systems integrators and AV consultants. However, as simple as the integrators make it look, the aesthetically pleasing architectures experience magic

(Image courtesy: Rhino Engineers)
Shamlaji Vishnu Mandir's visual brilliance presenting a glimpse of 3D projection mapping

*In this year's first edition of **AV-ICN Expo Magazine**, the column discusses world-changing trends coming around in 2025. From highly anticipated AV technologies to recently released projection mapping tenders, we explore myriads of opportunities hitting the Indian grounds.*

As always, referring to the changing dynamics of the Indian AV industry, the feature brings some striking insights for the curious AV trend seekers, revamping the idea of Audio and Visual in today's tech-driven world.

through various projections including 3D or immersive mapping.

Speaking of immersive experiences, the rapidly evolving AV world is witnessing a big leap, affecting niche segments like projection mapping also. The increasingly popular, Virtual Reality (VR) is assisting AV professionals to captivate visitors with spellbinding results, marking major advancements in projection technology.

AR And VR In Projection Mapping

"The Indian AR/VR market was valued at USD 4.84 billion in 2023 and is expected to grow at a CAGR of ~38.3% during the forecast period (2024-2032)," specifies Indian AR/VR Market report of *UnivDatos* signifying an expected surge in the use of VR in projection technologies. This enables visitors to witness Ultra-High-Definition (UHD) projections across the country.

The near future of projection mapping projects using AR/VR is expected to include immersive museums and exhibitions, product visualization in retail, educational AR overlays, and live events and performances.

Technological Surge in AV Segments

The use of high-end technologies has been upgraded with accessibility and better connectivity in India. Therefore, the use of AR and VR solutions is expected to take over education, corporate, retail, and hospitality segments with students, hybrid workers, shoppers, and travellers sharing immersive experiences through high-end

technologies. According to *Fact.MR's* report, "The market for augmented reality in education in India is projected to hit US$ 4.57 billion by 2033".

Education segment is using experiential learning to assist students in learning and engaging, developing their understanding of the subjects widely. Moreover, integration of AR and VR is redefining immersive experiences with experiential marketing in the retail sector where consumers can now interact with virtual environments.

Next-generation projectors by dominating AV brands like **Barco, BenQ, Christie, Epson,** and **Optoma**, are leading this shift to captivate visitors with majestic projections around the country.

Conclusion

It's about time that projection mapping converges with AR and VR technologies, providing seamless immersive experiences to the Indian market, blending both physical and digital worlds. In fact, viewing the analysis and data-driven insights, AV industry can hope for AR and VR to take over the education and corporate segments soon. The need for high-quality projectors and world-class AV solutions is now more than ever!

Keep an eye on the latest trends and experience a walkthrough of the changing AV dynamics, in this column. Feel free to share market insights from the pro AV industry.
Contact: ritika.pandey@hyve.group

World-class projection mapping and laser shows designed and commissioned by Headway Kreations illuminate Deoghar's sacred story at Shrawan Mela 2024

HEADWAY KREATIONS'
VISUAL BRILLIANCE
LIGHTS UP DEOGHAR'S
SACRED STREETS

Headway Kreations' team delivered a visual spectacle at Deogarh's Shrawan Mela 2024, conceptualising, designing, and commissioning the entire venue with **Epson** projectors. **Yogesh Choudhary**, Director, Headway Kreations, shares a detailed overview of the project in this feature, highlighting how the project turned into an awe-inspiring visual extravaganza.

The sacred city of Deoghar, also known as *Baidyanath Dham*, stands as a pivotal religious destination in India, revered for its association with Lord Shiva. Nestled in the state of Jharkhand, this iconic pilgrimage site is home to one of the twelve Jyotirlingas, making it a magnet for devotees from across the country. The Shrawan Mela, an annual month-long fair held during July and August, brings hundreds of thousands of visitors to this

holy city, culminating in a vibrant amalgamation of faith, culture, and celebration. This year, the festivities took on a spectacular new dimension, with Headway Kreations delivering an awe-inspiring visual extravaganza that left attendees spellbound.

POWERING TRANSFORMATIVE VISUAL SPECTACLES

Headway Kreations, one of India's leading names in professional visual-technology services, was tasked with conceptualising, designing, and commissioning a series of breathtaking visual experiences across multiple sites in and around Deoghar. The company's expertise, honed over 17 years in the industry, shone brightly as they executed these intricate projects with finesse.

Yogesh Choudhary, Founder-Director of Headway Kreations, commented, "We have been part of this industry for 17 years, building trust and delivering excellence. Headway Kreations' journey began in 2007 under the name **Laser Vibgyor**, focusing on laser-based visual solutions. Over the

Yogesh Choudhary, Director, Headway Kreations

years, the company evolved, rebranding as Headway Kreations in 2017 to reflect our expanded portfolio and holistic approach to visual technology. Today, we stand as a trusted partner for clients across India, consistently delivering high-quality results that exceed expectations. Our long-standing relationship with the organisers of Shrawan Mela is a testament to our commitment to quality and innovation. From projection mapping expositions to immersive laser shows and unique aqua-screen projections, the audience experiences that we've coalesced at the Shrawan Mela 2024 celebration showcased a truly seamless blend of technology and creativity."

CELEBRATING MYTHOLOGY THROUGH PROJECTION MAPPING

The festivities extended beyond the temple precincts to include key locations such as *Dumka* – a neighbouring city that shares a common history with Deoghar; *Basukinath* – where 'Bol Bam' pilgrims pour holy water on the sacred 'Shivaling' after

Headway Kreations unveiled a breathtaking visual spectacle by harnessing the power of Epson EB-PU2220B projectors at Shrawan Mela 2024

a multi-day journey; and the iconic Clock Tower in Deoghar which is a popular marketplace that's always bustling with locals and tourists.

At the core of these visual spectacles was a carefully curated projection mapping narrative that brought to life the legend of Ravana's devotion to Lord Shiva. According to Hindu mythology, Ravana offered his nine heads to the deity, and as he prepared to sacrifice the tenth, Lord Shiva appeared, pleased with his offering. This tale, steeped in devotion and faith, was illustrated through intricate visuals designed by Headway Kreations; with the content not only celebrating the religious significance of Deoghar but also educating viewers about its cultural and spiritual heritage.

Detailing the nuances of the projection mapping content, Choudhary explains, "Our goal was to craft an experience that wasn't just visually striking but deeply immersive—while staying true to the cultural essence of the Shrawan Mela. We focused on creating a narrative that honoured Deoghar's spiritual significance, delivering a rich, visually captivating journey that was as enlightening as it was awe-inspiring."

The story was played four times each evening, from 7 PM to 11 PM, over the course of the month-long Mela. And each session lasted 40 minutes, immersing viewers in a blend of light, sound, and emotion that left a lasting impression.

CREATIVE GENIUS MEETS TECHNICAL BRILLIANCE

To ensure a seamless, cohesive, and high-quality viewing experience, Yogesh and his team began by conducting an in-depth analysis of the client's requirements and a meticulous evaluation of each individual site i.e. Dumka, Basukinath and the Clock Tower respectively. This detailed groundwork enabled them to envision a truly unique and awe-inspiring visual spectacle for audiences at every location. To bring this vision to life, they opted to deploy the innovative AquaScript waterscreen from ASL (Aquatech Sound & Lighting) and the powerful D1-RGB60W lasers from LVS (Laser Vibgyor Systems).

Choudhary revealed, "ASL and LVS are both sister enterprises of Headway Kreations; and hence, they both embody a shared ethos of innovation and precision in visual storytelling. Engineered to perfection, their respective flagship technologies i.e. the AquaScript and D1-RGB60W exemplify this commitment; as both systems

are built to excel in crucial performance metrics like output brilliance, operational efficiency, and rugged durability. Throughout the course of the demanding 30-day event, these systems delivered flawless results, proving their ability to withstand the challenging and unpredictable Indian environmental conditions without compromising on quality or impact."

At Dumka, Headway Kreations unveiled a breathtaking visual spectacle by harnessing the power of **Epson EB-PU2220B projectors**, renowned for their 20,000 lumens of brilliance, to project vibrant imagery onto ASL's proprietary AquaScript waterscreen. The audience experience was elevated further with the integration of 10 units of the cutting-edge LVS D1-RGB60W lasers, which delivered unmatched visual intensity and precision. A similar awe-inspiring setup graced the Basukinath site, where the seamless synergy of AquaScript water-screens, Epson projectors, and the D1-RGB60W lasers recreated the same magic witnessed in Dumka, as audiences in Basukinath were also left spellbound. And at the iconic Clock Tower, the celebration reached its zenith with high-performance projection mapping, as the Epson EB-PU2220B projectors bathed the historic structure in vivid visuals, transforming it into a glowing beacon of cultural pride and drawing thousands into the heart of the festivities.

OVERCOMING CHALLENGES WITH FORTITUDE AND EXPERTISE

A brilliantly immersive visual experience not-withstanding; executing such a grand-scale project was not without its fair share of challenges; as Choudhary informed, "To be honest, the main challenges we faced were more operational rather than technical. For example, the Dumka site, where the AquaScript waterscreen was installed, presented significant operational hurdles. The pond designated for the installation was fraught with muddy water and even snakes, making it a daunting environment for the team to maintain operational efficiency while ensuring personal safety.

That being said, meticulous planning and unwavering determination allowed our team at Headway Kreations to overcome these obstacles and deliver a flawless performance. By addressing every potential issue with a detailed plan of every single move, we not only ensured

the safety of our team but also maintained a consistent high-quality output throughout the rigorous 30-day show run. The end result was worth every effort."

Beyond Dumka, the team also faced a separate set of challenges at the Clock Tower site as well. As the team was forced to mitigate the ever-looming presence of bustling crowds while ensuring the projection equipment stayed precisely in position and accurately active. "While working at the Clock Tower site, the objective for our team was to maintain world-class visual output without disrupting visitor movement in any way, shape, or form. I'm proud to say that once again, team Headway Kreations rose to the occasion, demonstrating their collective commitment to excellence," said Choudhary.

THE ROAD AHEAD

Beyond the awe-inspiring projection mapping and laser shows, the organising committee of Shrawan Mela 2024 was effusive in their praise for Headway Kreations for their exceptional professionalism and dedication to crafting world-class audience experiences. "Headway Kreations went above and beyond to deliver a spectacle that resonated with every visitor," said a Senior Organising Committee member. "Their work wasn't just about visuals; it reflected a deep commitment to celebrating the cultural significance of the event. Their attention to detail and their passion for excellence are unparalleled. They didn't just meet expectations—they set a new standard for immersive experiences at cultural events."

Without a doubt, the visual spectacles at Shrawan Mela 2024 have set a new benchmark for religious and cultural events in India; and Headway Kreations' ability to blend cutting-edge technology with storytelling has not only elevated the festivities but also underscored the potential of visual technology in enriching cultural experiences.

"The overall experience has been truly remarkable," concluded Choudhary. "Both the client and the viewers thoroughly enjoyed the entire month, and we're proud to have contributed to this unique celebration. As Headway Kreations looks to the future, our commitment to innovation and excellence remains unwavering. With a proven track record and a visionary approach, we are poised to redefine the possibilities of visual technology design and deployment in India."

ISE 2025 SETS NEW BENCHMARKS IN BARCELONA

by Smita Rai, Editor, PALM & AV-ICN Magazines

Epson's Eco-Sphere installation featuring AI-generated visuals, highlighted the world's smallest and lightest 4K projector with 20 000 lumens – Epson EB-PQ2220!

I had the opportunity to attend Integrated Systems Europe (ISE) 2025, held at the Fira Barcelona, Gran Vía from February 4-7, 2025, and it was an exhilarating experience. As a first-time attendee, I was struck by the sheer scale of the event, which undoubtedly cemented its position as the largest and most prominent AV show globally. The exhibition floor was abuzz with the who's who of AV manufacturers and solution providers, showcasing their latest innovations and products. As per the official ISE press release, the show saw a record-breaking turnout of 85,351 unique verified visitors from 168 countries, a 15.5% increase from the previous year. The event drew 49,981 attendees on the first day, a 16.1% rise from 2024. ISE 2025 was a vibrant and well-attended edition, with a total of 110,540 registrations and 185,700 visits across four days. However, I did notice that participation from India, in terms of attendees, including AV consultants and Systems Integrators, seemed lower than in previous years.

The ISE 2025 keynote lineup explored the intersection of technology and business. The opening keynote, "AI is Eating the World," highlighted AI's transformative power.

ISE 2025 delegates also had the opportunity to participate in bookable Tech Tours, which provided exclusive, behind-the-scenes insights into some of Barcelona's most impressive AV installations. The tours took attendees to notable destinations such as FC Barcelona's Barça Immersive Tour, the largest immersive room in any European sports museum; the 2,000 square metre Alfa5 XR Sports Center; and L'Aquàrium de Barcelona, which boasts cutting-edge features including a 3D exterior, holographic welcome experience, and LED digital displays throughout the ticket hall. ISE 2025's conference programme offered free content across multiple stages, including the Live Events Stage and AVIXA stage. Notable events included "Ask the Experts: Sustainable AV" featuring expert speakers from leading industry companies.

The show also featured comprehensive Tracks, including dedicated conferences on digital signage, control rooms, and AV broadcast. Five new Tracks were introduced, focusing on AI, Audio, Cybersecurity, Retail, and Sustainability.

ISE 2025's new Hall 8.1 hosted the Esports Arena, featuring live tournaments with professional players. The arena showcased popular games like FC25, MotoGP, and Rocket League, with live AV and broadcast technology on display. Visitors could enjoy the electrifying atmosphere, live broadcasts on YouTube, and expert talks on the esports industry.

SOME KEY INNOVATIONS ON THE ISE 2025 TRADE SHOW FLOOR INCLUDED:

Optimal Audio

Optimal Audio expanded its ecosystem with new products. The Talk 8, an eight-zone paging system, offered 4GB of memory, instant message playback, and scheduling via WebApp, as well as a secure-fitting dynamic gooseneck microphone and a backlit TALK button with latching and non-latching options. Additionally, the ZonePad 8 provided a dedicated venue control solution with a touch-screen interface, simple configuration, and seamless integration with Optimal Audio's ecosystem. Rounding out the new offerings was the Sub 18, a powerful, passive, 18" subwoofer featuring

an 18" driver, and a peak SPL of 136dB.

Linea Research

Linea Research, launched its new control software, System Engineer 8 (SE8). SE8 provides easy-to-use DSP and power management with a workflow-based design, allowing audio systems to be set up in minutes. The software features fast auto-synchronisation, a graphical workflow-based design, and a three-step workflow for setup, preset selection, and tuning. SE8 also includes features such as full-screen EQ and crossover control, limiter suite, EQ toggle, and copy/paste functions. Additionally, the software offers versatile IP addressing, an intuitive IO matrix mixer/router, and improved telemetry logging.
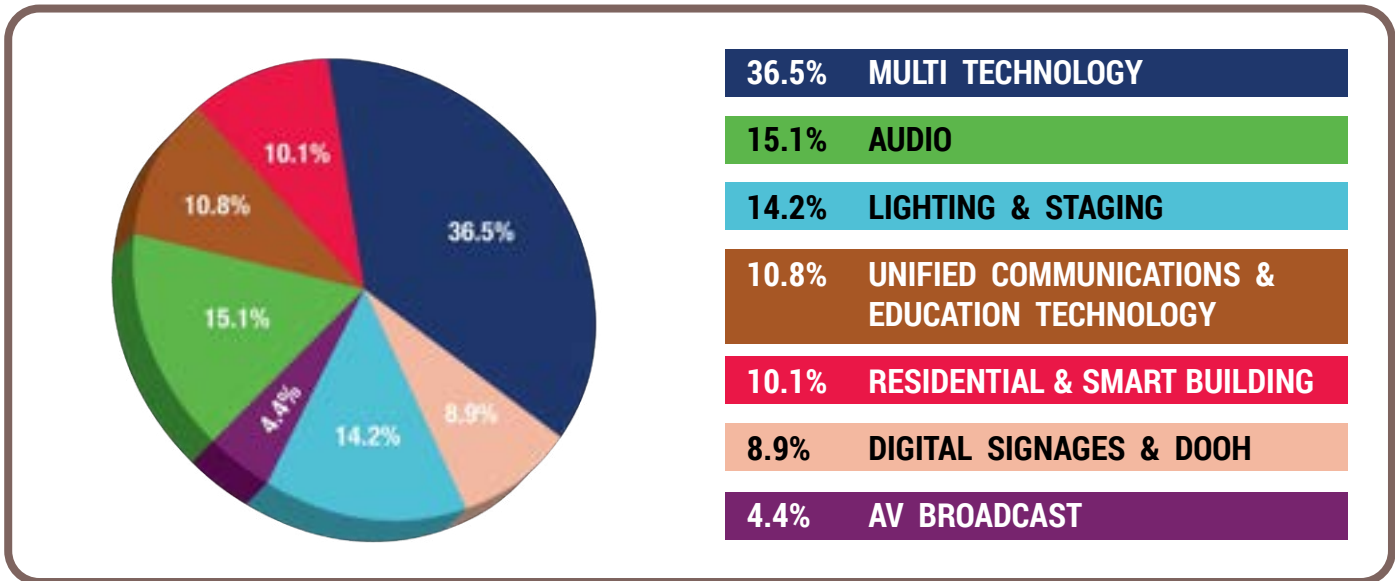
TiMax Spatial

TiMax Spatial, introduced several new products and updates at ISE 2025. The company showcased TiMax SoundHub 695S, a new client software release that offers functional enhancements, bug fixes, and user-experience refinements, including support for the 'Z' axis in PanSpace and Timeline, and refined audio loop point modification. Additionally, TiMax panLab, a macOS application for creating spatialized audio designs, features a 3D user interface and integration with QLab and TiMax SoundHub, making it easy to craft immersive audio soundscapes. TiMax also introduced TiMax TrackerSP, an integrated lighting control system that enables TiMax TrackerD4 to direct and focus moving-head light fixtures via ArtNet and sACN and provides a direct portal into Stage Precision's native suite of control applications.

Biamp

Biamp, announced the European debut of six innovative products at ISE 2025. The products include the Biamp Workplace cloud-based AV asset management portal, CCA-80 Aisle Loudspeaker, Community R.15-3696 Loudspeaker, Vidi 280 Conferencing Camera, Parlé VBC 2800 Video Conferencing Bar, and Parlé CBC 2500 Ceiling Mounted Audio Conferencing Bar. These solutions are designed to elevate audiovisual experiences in various spaces. Biamp

DISPLAY BATTLEGROUND

36.5%	MULTI TECHNOLOGY
15.1%	AUDIO
14.2%	LIGHTING & STAGING
10.8%	UNIFIED COMMUNICATIONS & EDUCATION TECHNOLOGY
10.1%	RESIDENTIAL & SMART BUILDING
8.9%	DIGITAL SIGNAGES & DOOH
4.4%	AV BROADCAST

> " *45% of ISE technology is for Display I would say. The AV industry is in itself a display battleground. AV projects and AV delivery whether in education, hospitality, events, sports, aviation and the other sectors is heavily dependent on display technology. Digital Signage at ISE 2025 occupied 8.9% of exhibit space covering 142 number of companies. The Multi-technology exhibits covered 586 number of companies which were predominantly exhibiting display products. Our pie chart above exemplifies the predominance of display at ISE. This realisation is the guidance factor for investment in India's AV industry, future growth and product development focus. Even at AV-ICN expo, display occupies the predominant product technology exhibit range. One of the first brands in AV technology with manufacturing is LOGIC who have also focussed their energies on display. The recent CAVS, Bengaluru used a LOGIC interactive touchscreen display Made in India. AV-ICN magazine will soon feature an in-depth explanation of the depth and range of display products and technologies. "*

- ANIL CHOPRA, EDITOR-IN-CHIEF, PALM AND AV-ICN EXPO MAGAZINES

The PALM AV-ICN team comprising Ramesh Chetwani, Smita Rai and Zeeshan Ali Patel at ISE 2025

also expanded its Voltera family of networked amplified loudspeaker controllers (ALCs) with three new 4800-watt models. The Voltera ALCs simplify installations, are compatible with Biamp's VenueTune software, and can be remotely monitored and managed through the Biamp Workplace platform.

Philips Professional

PPDS announced a technology partnership with True Performance to develop a new range of dvLED displays with advanced features such as Pantone Validated colour performance and automatic calibration. The new Philips True Performance dvLED solution will be produced in Europe, making it trade-ready for government and MOD settings.

PPDS also unveiled the Philips Interactive 3000 Series, a new range of multi-touch displays designed for 24/7 environments. The series features advanced PCAP touch technology, anti-glare and anti-fingerprint coating, and high brightness levels. Additionally, PPDS expanded its outdoor dvLED line up with the launch of the Philips Urban LED 5000, 6000, and 7000 Series. These new displays offer ultra-high brightness and durability, making them ideal for public venues, high streets, transportation hubs, and stadiums.

Nureva

Nureva showcased its latest innovations, focusing on simplifying AV management for IT teams. The company introduced Nureva Console, a cloud-based system and a mobile app allowing users to configure and control devices, eliminating the need for additional software. Key trends observed at the event included the importance of simplicity, the convergence of AV and IT, and the need for room refreshes, with many organizations planning to upgrade their meeting rooms and classrooms. Additionally, the use of multiple cameras in rooms is becoming increasingly popular, enhancing the remote-user experience.

All in all, ISE 2025 was a resounding success, bringing together innovative solutions and solidifying its position as a premier platform for the global AV community.

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2025 YEAR PLANNER
AV-ICN EXPO — AV INTEGRATION COMMUNICATION NETWORKING EXPO — www.av-icnx.com

2025 Year Planner Calendar

Month	Events
JAN 2025	NAMM Show (USA) www.namm.org (22–25)
FEB 2025	ISE (Spain) www.iseurope.org; Get Show (Guangzhou) www.getshow.com.cn/en
MAR 2025	
APR 2025	NAB Show (USA) nabshow.com; Prolight + Sound (Germany) https://pls.messefrankfurt.com/frankfurt/en.html
MAY 2025	Koba Show (South Korea) kobashow.com/eng; Prolight + Sound (Guangzhou); PALM Expo 2025 (Mumbai) www.palmexpo.in; AV-ICN 2025 (Mumbai) www.av-icn.com
JUN 2025	Infocomm Show (USA) www.infocommshow.org
JUL 2025	
AUG 2025	
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AV INSTALLATIONS: GLIMPSES

Agranika Techlabs Transforms Prestigious University with PeopleLink Solutions

Agranika Techlabs, one of the end-to-end IT solution providers, delivering continuous innovations and uncompromising excellence, recently completed a comprehensive audio-visual and video conferencing setup for a prestigious university's boardroom.

The team met the tight 4-day deadline to successfully integrate the boardroom with cutting-edge AV solutions before a crucial inspection. The AV project required installation within the conference space of size 40ft x 24ft for senior management and auditors. Moreover, the client required high-quality audio, individual mic systems for each partici-

pant, multiple large displays for clear visibility, and seamless video conferencing for remote collaboration.

To ensure seamless integration, Agranika Techlabs' team preferred **PeopleLink Collaboration's** AV solutions for the venue including 98-inch interactive flat panel for engaging presentations, 65-inch professional displays on two side walls for clear visibility from all angles, chairman

delegate mic units for crystal-clear audio, ceiling speakers for uniform sound distribution, ePodium with gooseneck mic and centralized control for easy management, and 20X camera with auto speaker tracking for smooth hybrid meetings.

The team, with the support of PeopleLink Collaboration Inc.'s advanced technology, managed the entire solution—from design to implementa-

tion—within 4 days, ensuring a flawless setup for the client. The setup's centralized control and superior audio-video quality transformed the boardroom into a hub for collaboration and productivity. Agranika Techlabs' team's efficiency and commitment to deliver the project in such a short span by fast-tracking logistics, efficient site preparation, and close collaboration made this time-sensitive project a success.

Infonics Technologies Partners with TV18 to Provide Cutting-Edge LEDs

Infonics Technologies, one of the leading manufacturers of high-quality LED display products, partnered with TV18 on a studio upgrade project in Sector 93, Noida. With the goal to provide unparalleled quality and exceptional customer service, Infonics chose custom solutions for the client to deliver state-of-the-art AV solutions at the studio.

Facing budget limitations for high-end P2.5 LED screens, the team developed a creative AV solution. By designing and fabricating a custom frame, the team ensured the structural integrity and weight support necessary for the installation. This innovative approach met TV18's budgetary constraints and delivered a high-quality and visually impactful result.

This project demonstrates Infonics Technologies' commitment to client satisfaction and the ability to provide cost-effective and innovative solutions for even the most challenging projects.

WISDOM IN LIGHT: 3D Projection Mapping on Thiruvalluvar Statue, Kanyakumari

Modern Stage Service (Projects) took the challenge of blending technology, cultural reverence, and storytelling brilliance. By transforming this centuries-old icon into a vibrant canvas of wisdom and art, the project establishes a new standard for contemporary digital experiences.

The statue's intricate contours and dark stone were illuminated with high-contrast

visuals, ensuring clarity and depth despite its complex structure. Advanced projection mapping techniques ensured that visuals remained undistorted, even in the face of strong

ocean winds.

The entire design showcased visual and acoustic brilliance with the technology integrated into a show powered up by six **Christie**

Griffyn 4K35-RGB pure laser projectors, **Pixera Media** Management and Control Server, **Black-Box** video processing, **PR Lighting** Moving Heads AQUA 350, and **Harman-JBL** All-weather audio system for surround sound.

This show was more than just a technological feat—it transcended new media entertainment to become a breathtaking cultural experience along the shores of the Indian Ocean. Content partners, **Priyanka Bhagat** and **Mandeep Sharma**, alongside the visionary team, played an instrumental role in actualizing this creative vision, turning a centuries-old icon into a living, luminous storyteller.

AET Lights Up Visual Experience at National Institute of Medical Sciences (NIMS) University, Jaipur

AET LED Displays, a pioneer in advanced active LED technology, unveiled a state-of-the-art active LED display installation that revolutionized the Rajeswari Auditorium at the National Institute of Medical Sciences (NIMS) University, Jaipur. This transformative upgrade sets a new benchmark for high-performance active LED display technology, enhancing presentations, live performances, and audience engagement like never before.

At the core of this innovation is a 12.16m x 6.72m NT Series LED display featuring a 2.5mm pixel pitch and an ultra-high

Cabinet matrix 19 x 14

resolution of 4864 x 2688 pixels. Designed for superior image fidelity, this display delivers razor-sharp visuals and vibrant colors, ensuring an immersive experience from every corner of the auditorium space.

What sets this installation apart is AET's 'patented' Quantum Chip Multilayer-on-Board (QCOB) technology,

engineered for precision, durability, and seamless integration. This cutting-edge technology takes the visual experience to the next level while ensuring unmatched reliability, making it ideal for any demanding professional environment.

With this installation, NIMS University now boasts a next-generation visual experience

that redefines learning, creativity, and event experiences. Once again, AET LED Displays reinforces its position as a technology-focused vertical supply chain integrator in active LED display manufacturing, committed to pushing the boundaries of innovation and delivering immersive, future-ready display technology and solutions.

To share installation stories leading the AV industry, contact: Ritika Pandey | ritika.pandey@hyve.group

SIMPLIFYING AV NETWORK MANAGEMENT

Marthesh Nagendra, APAC & MEA Senior Sales Director for Netgear's Commercial Business, leading the company's sales strategy across the region, shares this insightful feature with AV-ICN Expo Magazine. Nagendra's leadership and expertise has been pivotal in driving growth and meeting the evolving demands of AV-over-IP and commercial networking solutions across APAC. Sharing his expertise with the AV readers, Nagendra, in this feature, emphasizes on 'simplifying AV network management'.

Contributor: Marthesh Nagendra, APAC/MEA Senior Sales Director, NETGEAR

As audiovisual technologies continue to evolve, the underlying network infrastructure that supports them is becoming more complex. With devices now connected over IP, the need for reliable, easy-to-manage network solutions has never been greater. That's where AV-over-IP network specialist vendors come in—offering innovative products and tools specifically designed to simplify AV network management.

WHY AV NETWORK MANAGEMENT MATTERS

Modern AV installations often involve a mix of video encoders, decoders, control systems, and displays, all communicating over a network. The traditional approach of using off-the-shelf IT switches can lead to headaches: configuration is tricky, troubleshooting requires specialized knowledge, and ensuring stable performance across multiple devices is a constant challenge. AV professionals need network solutions that cater to their unique needs—simpler setup, optimized performance, and reliable operation.

PURPOSE-BUILT AV SWITCHES

Manufacturers like NETGEAR have responded to these challenges with special series of switches, tailored for the AV industry. These switches come pre-configured with settings specifically designed for popular AV over IP protocols, such as Dante, AES67, NDI, and AVB. What sets them apart is their AV-centric interface that removes much of the guesswork. Instead of diving into command-line configurations, integrators can select from preloaded profiles that match their AV devices. This reduces setup time, minimizes errors, and ensures compatibility right out of the box.

STREAMLINING CONFIGURATION WITH AV GUI AND SITE CONTROLLERS

A cornerstone of a great approach is a user-friendly Graphical User Interface. Unlike traditional IT switch interfaces, such a UI presents a simplified, intuitive layout that speaks the language of AV professionals. With just a few clicks, users can assign VLANs, apply multicast settings, and prioritize audio and video traffic. This GUI is ideally available both on the switch's web interface and through an on-site controller app, giving installers the flexibility to configure and monitor one switch or entire networks.

AUTOMATED MULTICAST MANAGEMENT

In many AV-over-IP environments, multicast traffic—used to distribute high-quality video streams—can overwhelm an improperly configured network. Recent innovations take the complexity out of multicast setup. Features like IGMP Plus streamline multicast configuration. AV integrators can deploy systems faster, with fewer hiccups, and end users benefit from consistent, high-quality streaming experiences.

REMOTE MANAGEMENT AND MONITORING

Another standout feature of modern networking solutions for the IT market is remote management. Through, for example the NETGEAR Insight platform, integrators can monitor their networks in real time, receive alerts about potential issues, and even push firmware updates from anywhere. This not only reduces downtime but also allows integrators to offer proactive support, ensuring that clients' systems run smoothly long after installation.

THE FUTURE OF SIMPLIFIED AV NETWORKING

Real dedication to the AV industry goes beyond hardware. The winning companies regularly engage with integrators and end-users to gather feedback, refine its products, and add new features that address real-world challenges. Emerging leaders of the future partner with leading AV manufacturers to ensure that their network devices, like switches and wireless access points, are certified and tested for seamless interoperability.

By making AV network management simpler and more reliable, network manufacturers are helping the industry move forward. Their innovations empower AV professionals to focus on creating great experiences rather than wrestling with complex network configurations.

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