

Install Story: Narendra Naidu of Rhino Engineers Makes Ayodhya's Ram Mandir Bask in Luminescent Glory

Interview: 11 Questions with Petteri Murto,

Sennheiser

AV Integration: IIM Ahmedabad's Seamless AV Integration by **HAVI DESIGN**

Case Study: Vallect Engages Mall Visitors with Innovative LED Videowall Integration

> Conference Series: Elevating Education with Smart Classrooms



AV-ICN TOP 50 PRODUCTS OF 2023

AV-ICN EXPO MAGAZINE SELECTION OF PRODUCTS FROM WORLD OF PRO AV



BRANDS IN AV-ICN PLATFORM

CAVS MAGAZINE NEWSLETTER CONFERENCE EXPO



Apna

AVIENTEK

Canon

eisconnect

EverGlow

HAWAII LED SCREEN

EKSA

MAXHUB



Nputure*

вепо

CHKISTIE

Eyte Technologies Pvt. Ltd.

icron

logitech

MINDSTEC

NIKITA



BLACK BOX

∉eistouch[™]

FABULUX LED

LOTUS

Mitel*

NOVA) STAR



3

BMAX



































LE DESAGN





L



















Nteck systems





Venre



VESTEL











YNG





WALL MOUNTS

LASER PROJECTORS

VIDEO CONFERENCING **BARS**

CHOOSING CATEGORIES

PROJECTION SCREENS

VIDEO SOUNDBARS

INSTALL LOUDSPEAKERS

VIDEO WALLS

VIDEOWALL PROCESSORS

AV-ICN TOP 50 SELECTION

PRODUCT ANALYSIS **CEILING MICROPHONES**

MULTI-WINDOW PROCESSORS

VIDEO CONFERENCING **COLLABORATION SOLUTIONS**

ENCODERS & DECODERS

AV SWITCHERS

CEILING SPEAKERS

LED DISPLAYS

AV DISPLAY CONTROLLERS

AV-OVER-IP TRANSMITTERS & RECEIVERS

APPLICATIONS

AV STREAMING DEVICES

WALL HOLOGRAMS

INTERACTIVE WHITEBOARDS

(Article on Page 4)....



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HAVI DESIGN LLP advances IIMA's venue with complete cutting-edge AV solutions for seamless meeting experiences



Petteri Murto, Vice President of Sales and Marketing for APAC, Sennheiser

AV-ICN - JANUARY-FEBRUARY 2024



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The Rapid Expansion of Dynamic Outdoor LED Displays by **Pankaj Bellad, LOGIC**





TOP 50 PRODUCTS & TECHNOLOGY

Global Pro Audiovisual Technology

In AV-ICN Expo Magazine's first edition of 2024, the AV-ICN Expo Magazine Team collated a selection of The Top 50 Products of 2023 - 50 industry-defining products, launched between January - December 2023, from the world of pro audiovisual technology. These products, which drive the acceptance and usage of superlative solutions in the AV fixed install segments, such as hospitality, education, conferencing, and more as well as AV rental markets, were cherry-picked by the magazine's selection committee based on a myriad of criteria – including product analysis, market study, and product applications for the Indian AV market. Groundbreaking technologies including LED displays, projectors, video walls, ceiling speakers, ceiling microphones, and more share the spotlight in this AV feature. Read on.

AET AT55



pixel density and seamless integra-

tion capabilities, it promises to transform close-up viewing experiences. AT55 is perfect for applications such as indoor environments, Broadcast & Media Industry, B2B, Airports/ Transportation, Control & Surveillance Center, Government, as well as Healthcare & Hospitals.

Aircast Pro



ATEN PresentON VP2021 - 4K Wireless Presentation Switch

The ATEN PresentON VP2021 is a wireless BYOD solution that features multi-view and audio out, designed to elevate content-

sharing flexibility. Moreover, it is equipped with USB touch back and moderation mode functions, allowing presenters control meetings more easily. The VP2021 also comes with innovative collaboration tools for productivity enhancement. This solution also features remote view for all participants present. In addition, its PoE connectivity allows for easy installation. It's ideal for huddle spaces and large meeting spaces and is flexible for corporate or education use as well.

Aurora SKR-22T-XFR Ceiling Tile Speaker

The SKR-22T-XFR is the latest speaker innovation from Aurora. This lightweight speaker delivers clear sound and

reproduces 180-degree sound field, which allows the use of only one speaker in a room for mono operation. The installation for SKR-22T-XFR is easy, quick, less costly, and less messy as the users do not have to cut ceiling tiles or mount back boxes. The user simply has to drop the tile into a 2x2 ceiling grid and connect the speaker wire. For 4x2 ceiling grids, all a user has to do is cut the tile in half and add a standard ceiling divider. It is that simple.



AV Stumpfl Blackpeak Projection Screen

The new BLACKPEAK projection screen material allows for the projection of highly impressive images even in bright environments. Its extraordinary image reproduction quality is comparable to LED displays and other light emitting display technologies.

AVer MT300N NDI Matrix Tracking Box

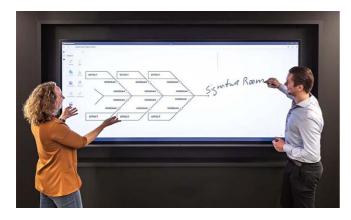
AVer's multimedia device, MT300N NDI Matrix Tracking Box, makes it easy to manage and control multiple sources through one unified platform. From meetings and training sessions to classrooms, the MT300N is ideal for any size requirement. With the MT300N, users can easily mix-and-match video, audio and com-



puter devices for the ultimate multimedia experience. The MT300N features Up to 4K 60 fps Output Resolution, HDMI In/Out, USB In/Out, PoE+, RS-422 Control, Intuitive Web UI, and Built-in PTZ Link Premium, and supports NDI HX2 Cameras Outputs as well as NDI HX3 Cameras Inputs.

Avocor L-Series Ultrawide Displays

Avocor L-Series Ultrawide Displays' unique 21:9 aspect ratio offers increased width for a more usable interactive area. The smooth,



highly responsive touch features enhanced durability and excellent optical performance, elevating the interactive whiteboard to a new level with a multi-touch experience that includes a stylus, finger, or palm rejection, couple with wireless screen sharing from any device and instant whiteboarding capabilities with Montage.

Barco Clickshare CX-50 2nd Generation Wireless Conferencing

ClickShare CX-50 enables wireless conferencing in large meeting spaces and board rooms. When you walk into the meeting room, ClickShare automatically connects you to room devices like cam-



eras, mics, speakers, sound bars and displays. Start a meeting from your laptop within seconds, using your preferred video conferencing platform.

Barco UniSee II

technology, which contribute to optimal

Barco UniSee II redefines LCD video wall visualization with new innovations, including the use of mini-LEDs and Chip-on-Glass

contrast with deep blacks. Additionally, quantum dot technology delivers crisp colours and enhanced saturation. The uniformity with superior inter-panel communication, coupled with the renowned bezel-less

LCD panels makes this video wall act as a large single canvas.



BenQ, LK935 Business Projector

The BenQ LK935 4K laser projector delivers excellent perfor-

mance during hybrid meetings with 5500 lumen brightness and high 4K resolution, even during video conference meetings that involve multiple split screens



featuring people and presentation content.

Biamp Desono C-IC6LP

The Desono C-IC6LP from Biamp offers the shallowest, low-profile ceiling loudspeaker form factors on the market with just a 4" (10 cm) mounting depth. Designed for superior speech reproduction in conferencing environments, the C-IC6LP is a two-way 6.5" (16.5 cm) passive coaxial loudspeaker, which includes RJ45 jacks (for connection to the Biamp AMP-450BP) and is low-impedance only (no transformer). The C-IC6 also directly integrates



with the Tesira AMP-450BP — a four-channel "backpack" PoE+ amplifier — which minimizes wiring requirements and saves on installation time.

Biamp Parlé VBC 2500a

The Parlé VBC 2500a is an all-in-one, professionalgrade audiovisual conferencing bar for huddle-, small-, and medium-sized conferencing rooms. It includes a wide-angle 4K pan-tilt-zoom camera incorporatn high quality optics along with auto-framing and auto-focus technology. For audio, the bar features a 27-element Beamtracking microphone array across three zones to actively track and intelligently mix

conversations. For easy setup, the Launch software automatically determines the acoustics of the room and then optimizes the bar performance at the touch of a button. For individuals requiring hearing assistance, the VBC 2500a is compatible with assistive listening systems via a dedicated 3.5mm output connector.

B-Tech AV Mounts BT8228 Heavy Duty Twin Cantilever Arm Flat Screen Wall Mount

Designed to mount extra-large screens, the BT8228 Heavy Duty Cantileber Arm Flat Screen Wall Mount features an easy-to-tilt in-



EXPERIENCE

STREAMING EXCELLENCE



INNOVATION PTZ SYSTEMS FOR INDOOR PRODUCTIONS

terface and three swivel points for a smooth and quick repositioning of the screen - whether folded flat to the wall or at maximum extension. Featuring cover plates and integrated cable management for a tidy



mounting solution, the BT8228 Wall Mount is ideal for both commercial as well as home installations.

Chief Tempo Flat Panel Wall Mount System

The all-in-one configurable wall mounting system, Tempo Flat Panel Wall Mount System, is designed to improve efficiency by streamlining installation workflow with 10° of adjustable display tilt



in 2.5° increments. Its wall plate and extending interface design facilitates centering display in the right position. AV professionals can increase productivity and add

money to the bottom line with this new system, especially for mass rollouts. The Tempo Flat Panel Wall Mount System can be installed on any wall and it can neatly store AV devices with simple, unparalleled service access. 2-6 small devices can be installed behind the display on integrated Lever Lock storage panels.

Christie Core Series III

Christie Core Series III delivers the performance and reliability users expect with even better value, including lower power consumption. Available in a range of pixel pitches, Core Series III

video walls are ideal for any size installation where price is a factor, such as corporate lobbies, meeting rooms, and digital signage applications. With a lighter weight design, the Core Series III is easier to handle and install with ADA-compliant direct-



mount system. With the redundant on-board power and front-serviceability, these LED video walls are easy to maintain.

ClearOne BMA 360D

The BMA 360D offers excellent audio performance and native compatibility with any Dante-enabled DSP mixer. BMA 360D

incorporates industry's only ultrawideband, frequency invariant (FiBeam), Deep Sidelobe (DsBeam), beamforming mic array technology with uniform gain response across all frequency bands. Dante integration in the BMA 360D enhances the array's functionality by delivering unprocessed beam audio on individual Dante transmit channels.



Colorlight ColorAdept+Z8t

The Z8t is a professional display controller known for ultrahigh-definition quality and precise imaging, which is designed with modularity, supporting various input cards, including the cutting-edge ST2110 for IP raw media transmission. The pairing of ColorAdept with Z8t enables seamless integration of user-friendly



design and state-of-the-art display technology. ColorAdept has an intuitive interface and clear controls, ensuring that the setup of LED panel walls is accessible, even for beginners. Compatible with both Windows and MacOS, the product allows for remote control via a Gigabit Ethernet network, significantly reducing cable usage and simplifying on-site hardware connections.

Crestron AirMedia Connect Adaptor

TThe AirMedia Connect Adaptor (AM-TX3-100) supports wireless presentation and conferencing when paired with a Wi-Fi network capable AirMedia Series 3 Receiver.

alongside an AirMedia Series 3
Receiver is ideal for applications that need support in conference rooms, huddle rooms, lounges, lobbies, or almost any space in order to establish a productive meeting environment.

Datapath Limited Aligo TX100 High Scalable Transmitter

AAligo, Datapath's AV-over-IP solution, provides 4K content across a 10G network and compressed streams on 1G infrastructure simultaneously, delivering the desired flexibility in IP content distribu-



tion. Aligo utilizes Datapath's proprietary DS10G codec, which offers content with zero-latency 4K60 intra-frame encoding and is optimized for switched distribution over 10Gb networks.

Datapath VSN V3 Videowall Processor

Datapath VSN controllers are designed to capture, process, and display content on video walls across a spectrum of industries, from small corporate meeting rooms to large critical control rooms



and installations. Equipped with Intel processors and memory options, the VSN V3 can be preconfigured with Datapath Image graphics, vision capture, as well as SQX IP decode cards.

Datavideo Showcast-100

The SHOWCAST 100 from Datavideo is a 4K 4-Channel All-in-one Production Studio that features seven major functions. It can switch video, overlay text and graphics, control cameras, live stream, record, and mix audio



all from a single unit. Similar to a tablet, the 14-inch touch panel allows easy and intuitive access to switcher functions.

Epson EB-PU2213B

The EB-PU2213B, a 13,000-lumen large venue laser projector is designed for live events. Encased in a sleek black cabinet, this premium projector boasts 3G-SDI input and output for daisy-chaining, accommodating long cable runs, and a mechanical shutter for safeguarding during laser light shows. The EB-PU2213B employs a 20,000-hour virtually maintenance-free laser light source, features a hermetically sealed optical engine for high dust resistance (IP5X), and operates with a filterless cabinet for low-maintenance functionality. Compatible with nine optional powered lenses (available separately) for simplified installation, it offers premium features

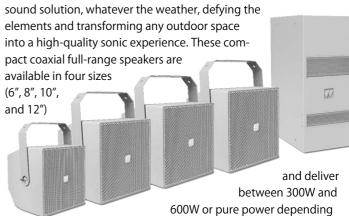
like built-in NFC functionality and an optional attachable Pix-AlignTM camera for streamlined multi-projector setups. With



WUXGA and 4K Enhancement, this projector delivers 13,000 lumens of equal white and color brightness, ensuring a top-tier visual experience for diverse applications.

Equipson WORK PRO ARENA Series

Available in a range of sizes to suit different applications, the WORK PRO ARENA Series is designed deliver a reliable, outdoor



on the model size selected. In addition, the ARENA Series features a Dual 8" 800W band-pass waterproof subwoofer that provides powerful low-frequency punch and audio enhancement for any ARENA Series installation. Environmentally adaptive and with hydrophobically-treated grills, the ARENA Series has moisture-sealed crossovers to protect sound integrity. Polyvinyl enclosures that mimic wood finishes provide additional protection against the elements.

Extron MGP 641 xi with LinkLicense 4K/60 Multi-Window Processors

The Extron MGP 641 xi is a multi-window processor that comes with up to four 4K/60 HDMl source signals on a single screen. It features advanced Extron Vector 4K scaling technology for the desired image quality and annotation capabilities with Extron LinkLicense. The HDCP 2.3-compliant processor supports live, non-scaled con-



tent or graphic images behind the source windows. The MGP 641 xi SDI model includes support for 12G-SDI sources. HDMI and DTP3 outputs deliver duplicate uncompressed 4K/60 signals to local and remote displays.

Genelec Smart IP 4436A

The 4436A is the latest addition to Genelec's Smart IP family of installation loudspeakers, all of which combine exceptional sound quality with single-cable networked convenience. Operating via a standard CAT cable, the 4436A supports PoE, Dante and AES67, plus sophisticated loudspeaker management via Genelec's Smart IP Manager software.



Hypervsn SmartV Holographic Live Stream

SmartV is one of the most mesmerising wall hologram display solutions created by connecting and synchronising multiple single

displays. It is easy to create, select, and prepare the content for display using integrated HYPERVSN Software Suite. Users can render 3D content and respond to the



audience in real-time with SmartV.

IKON 500

The all-in-one video soundbar crafted for seamless conferencing and collaboration. Specially designed for 12-seater conference



and board rooms, it combines sleek aesthetics with cutting-edge technology, ensuring crystal-clear audio and video for impactful meetings.

Jabra PanaCast 50 Videobar

The Jabra PanaCast 50 Room System is a complete solution that enables small and medium rooms to play host to more inclusive, more immersive virtual meetings. Using Al-enabled video and audio streams, PanaCast 50 Room System delivers a more natural and inclusive collaboration experience. And with our proprietary



intelligent algorithms, the tone and nuances of the meeting are captured to keep hybrid teams connected and engaged from anywhere.

JustAddPower - MaxColor Series 4K60 AV-over-**IP Transmitters and Receivers**

TThe MaxColor Series from JustAddPower is a new product line of AVover-IP Transmitters and Receivers that natively supports 4K@60Hz in and out, allowing the users to play High Dynamic Range Videos, including Dolby Vision and HDR10+ formats, using the growing number of Ultra 4K sources and devices.



JVC Professional JVC Professional Video - KM-IP8S4

The KM-IP8S4 from JV Professional Video consists a minimum of 8-NDI inputs and 4-SDI inputs (up to 1080p60) with a vMix 4K licensed software, 2RU, 1x 3G-SDI output, 4x 3G-SDI bi-directional connectors (mini-SDI to SDI cables included), 4x DisplayPort out-



puts, 1x HDMI output, Gigabit Ethernet Network Port, Windows 11 Pro, including a standard keyboard and mouse. The system is built according to vMix "Ruby" reference configuration with 4 3G-SDI inputs, 8-12 NDI inputs (Full HD), and a total of 50 inputs.

Logitech Rally Bar Huddle

Logitech Rally Bar Huddle, an all-in-one video bar for huddle and small rooms is equipped with an ultra-wide 4K camera that



captures participants in exceptional detail along with an integrated beamforming microphone to ensure clear and natural audio.

Logitech SIGHT

The Logitech Sight is an Al-powered meeting room camera that is designed to ensure an inclusive meeting experience. Sight comes with beamforming microphones to enhance sound quality and is equipped with two 4K cameras that capture a 315° view of the room from the center of any conference room.

Lumina Screens – Leor UST

The Leor UST, an ultra-short throw projection screen by Lumina, is designed to immerse the user in vivid and captivating visuals with the lights on.

What makes the Leor UST a perfect addition to a home is the lenticular structure. When integrated seamlessly into the fabric, it enhances image quality by providing exceptional light-shielding capabilities. With a viewing cone spanning nearly 170 degrees, the

Leor UST ensures optimal visibility from any angle. No matter where the user sits, every seat is the best seat in the house. Its superior ambient light rejection leaves ordinary ambient light



IPEVO

TOTEM 180

180° Panoramic Conference Camera









Adjustable angle of view













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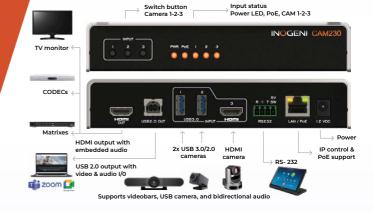






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rejection screens behind. Leor UST goes above and beyond by precisely blocking ambient light from above and perpendicular to the screen.

Maxhub Ultrawide 5K Display

This next-generation display is enhanced to be compatible with all the leading industry collaboration software. Invigorate every interchange with smoother, more engaging meetings. Carefully

engineered to optimize each pixel, 5K clarity illuminates the softest hue and the most delicate detail. Furthermore, panoramically wide viewing



angle lights up every corner of the room. No blind spots, just pure visibility of the room.

Nanta NT-EC-VB-4K

The state-of-the-art device, Nanta NT-EC-VB-4K, made in India, delivers unrivalled performance with its 4K video output, wide 121° field of view, and precise mechanical pan & tilt function. Featuring a beamforming microphone with a 6-meter pickup range and built-in bluetooth connectivity, it ensures crystal-clear audio for seamless communication. With advanced algorithms (AEC/AGC/



ANS), this Make in India product guarantees professional-grade quality for all your conferencing needs. Additionally, Nanta manufactures AOC-H-based HDMI & USB cables, along with PTZ and Gesture Control cameras tailored for education purposes, ensuring immersive learning experiences along with their conference camera.

Netgear M4350 Series Pro AV Switch

For NETGEAR's M4350 series, a simplified user interface makes it easy to assign configuration profiles to each port. NETGEAR IGMP Plus provides multicast functionality right out of the box for most AV-over-IP applications. Less fan noise, and mounting ears



are included for rack mounting with M4350 series. Auto-trunk and auto-LAG functionality auto connects with other M4350 switches.

Nureva HDL310 Pro Audio-Conferencing Systems

The Nureva HDL310 combines a powerful connect module with one integrated microphone and speaker bar for large spaces up to 30' x 30' (9.1 x 9.1 m). The system has greater processing power



and expands memory, unlocking more advanced audio capabilities within the technology. New algorithms offer improved echo cancellation, speaker EQ and noise reduction.

Optoma ML1080 RGB Laser Projector

The Optoma ML1080 is a highly portable and eco-friendly projector known for its energy efficiency. It features RGB triple laser technology, ensuring vibrant colors and brightness for up to

30,000 hours of maintenance-free operation. With a 58% reduction in power consumption, it's designed for sustainability. The modern, stylish design incorporates 50%



Post-Consumer Recycled (PCR) material, and up to 99% of its packaging is recyclable.

Owl Labs Owl Bar

The Owl Bar from Owl Labs is the first Al-powered multi-camera meeting experience that wirelessly connects the Owl Bar, a 4K front-of-room video bar to enable more natural and effective



hybrid collaboration. The Owl Bar features front-of-room camera, mic, and speaker allows remote participants to see all the action at once. Owl Bar's Al-powered speaker recognition and tracking ensures remote participants never miss a thing, and the Bar is easy to install using a table stand, a wall mount, or a TV mount.

Poly Studio X52

Poly Studio's X52 is an all-in-one video bar designed for mid-

sized meeting spaces. The X52 features 20MP 4K UltraHD 95-degree FOV camera, Poly DirectorAl smart camera technology, and Poly NoiseBlockAl and Acoustic Fence technologies. With accurate, Al-enhanced automatic framing and intelligent audio filtering, the



X52 allows every participant in the room to be heard with clarity as well as precision. Moreover, the X52 delivers users all the flexibility they need to join any cloud video call with built-in apps, standards-based protocols, or by utilizing their personal devices connected to the room system.

PureLink 4K60 HDMI to 1 LC Fiber Transmitter for Media Axis 2

Designed to work with the Media Axis 2 fiber input boards, the MAX2-FT100 provides a reliable extension of 4K/60Hz 4:4:4 video, audio, and control signals up to 330 ft (100m) via multimode or 6561 ft (2KM) via singlemode fiber connection. It extends 4K/60Hz 4:4:4 video, audio, and control signal up to 330 ft (100m) via multi-



mode or 6561ft (2KM) via multimode fiber connection. Media Axis 2 connects directly to the Media Axis 2 Fiber input board (MAX2-FOS100). Other key features include, audio insertion via 3pin Removable Phoenix Connector and bi-directional RS-232 via 3pin Removable Phoenix Connector.

QSC LA112 Line Array Loudspeaker

The LA112 is a next-generation, intelligent, active line array loudspeaker featuring a brilliant combination of leading-edge innovation and unparalleled ease of use in an easy-to-deploy package. The LA112 is easy to configure and deploy for applications ranging from simple, portable setups, to demanding, networked AV productions, and fixed installations. Innovations include the proprietary QSC LEAF (Length-Equalized Acoustic Flare) waveguide, QSC Acoustic Linear Phase (ALP) design and the ergonomically designed, single operator QSC RapidDeploy rigging system



coupled with onboard QSC AWARE (Automatic Wireless Array Recognition) system intelligence. The LA112 provides also flexible interoperability with networked audio systems (Dante).

Samsung - Flip Pro (WMB 75") Interactive Whiteboard

The Flip Pro Interactive Whiteboard (WMB 75") from Samsung

offers one of the industry-best latency at just 26ms, with prediction logic applied to arrive at a realistic, smooth drawing experience with 2,048 points of thickness, built directly into the display to unleash creativity. Plus, the



Flip Pro enables multi-touch for up to 20 people for increased interactivity.

Sennheiser TeamConnect Bar Solutions

The TC Bar solutions comes with options for small (TeamConnect Bar S) or mid-sized (TeamConnect Bar M) meeting and collaboration spaces, the TC Bar Solutions come with benefits like easy setup, brand agnostic integration, easy management & control, high video quality, security and sustainability. The TC Bar S features four microphones and two speakers, while TC Bar M has six microphones and four speakers. Both easily integrate with any meeting platform and can be further enhanced with other compatible products, including those from Sennheiser. The TC Bar Solutions provide unparalleled freedom and flexibility, allowing customer to choose the right video conferencing device for their meeting



room size and easily integrate the TC Bar into a room design with multiple mounting options like wall mount, VESA mount, tabletop, or freestanding. The option of using Dante for adding extension mics and/or a second external USB camera make the device even more scalable. The powerful full-range stereo speakers with their improved directivity pattern and optimized passive radiators ensure natural speech and intelligibility.

Sharp NEC Sharp PN-LC652

The LC Series from Sharp NEC is designed to meet the demand for Bring Your Own Device (BYOD) preferences. Equipped with seamless USB-C connectivity, just a single cable of the Sharp PN-LC652 connects display to personal device while receiving charge in return at the same time. Users can size up the screen area by connecting another display or projector via HDMI-OUT to be seen by a bigger audience. An all-in-one solution, the Sharp



PN-LC652 features pre-installed functionality for instant interactivity, and with the EShare feature, content can be wirelessly shared between devices for

best collaboration amongst peers and mentors.

Shure MXA902

The MXA902 Integrated Conferencing Ceiling Array combines mic, speaker, and DSP in one device for premium sound in the shortest time in small & medium rooms. In today's dynamic work environment, IT managers and AV professionals seek a reliable au-

dio solution that's easy to configure out-of-the-box, enabling them to efficiently transform any small to medium-sized room into an equitable meeting space. The MXA902 is a complete ceiling-mounted audio solution for AV conferencing, ideal for delivering premium audio capture and reproduction with minimal setup required. Offering a state-of-the-art array microphone for enhanced directional voice



capture and an integrated wide-dispersion loudspeaker for natural sounding far-end speech, users will experience the ultimate blend of superior sound quality and streamlined deployment. Onboard IntelliMix DSP applies automatic mixing, echo cancellation, noise reduction, and automatic gain control for a pristine audio mix.

Sony Crystal LED BH and CH Series Displays

The ZRD-CH12D delivers bright, vivid coloured images in a wide spectrum of environments – including corporate lobbies, entrances, boardrooms, and retail showrooms – even in extremely





BH-series

CH-series

brightly-lit spaces. The borderless design of the energy-efficient Crystal LED panel allows multiple ZRD-CH12D cabinets to be tiled in a seamless manner, creating high resolution displays with virtually any dimensions or aspect ratio – without bezels or visible gaps.

Vaddio AV Bridge Nano

Vaddio's AV Bridge Nano is a highly portable video capture and streaming device with conferencing capabilities, designed for IT professionals. The AV Bridge Nano can connect professional AV equipment to USB and IP streaming applications. The AV Bridge Nano enables reliable streaming and video capture scenarios over USB or RTSP/RTMP without the need to purchase two separate devices. It is completely compatible with the Vaddio Deployment Tool and Vaddio Device Controller touchscreen accessory, and the HDMI pass-



through feature makes it easy to integrate into Cisco codec setups. The AV Bridge Nano is compatible with the most popular soft conferencing applications, such as Microsoft Teams, Zoom, WebEx and others. It can also be used as a USB capture card for ingesting HDMI video into video editing applications. Its networking capabilities enable the creation of production-quality live streams on major social media platforms. The AV Bridge Nano is also ideal for AV systems in lecture halls, town hall meetings, or houses of worship.

ViewSonic LDS135-151 Direct View LED Display Solution Kit

The ViewSonic LDS135-151 is a foldable 135" All-in-One LED display that enables instant use and convenient maintenance, making it an ideal rental-ready solution for events, exhibitions, or any other short-term application and usage. The pre-assembled design and built-in motorized height adjustment stand allows for an

effortless setup within minutes. The new foldable screen design reduces the packaging size of the mobile flight case by nearly 50%, thus minimizing shipping costs. With seamless large screen and built-in Harman



Kardon speakers, the ViewSonic LDS135-151 is ideal for a variety of environments everywhere - from high-end board rooms and receptions to galleria, auditoria, and other large venues.

WyreStorm NetworkHD 120 Series 4K30 4:2:0 Encoder & Decoder

The NetworkHD 120 Series support both video encoding/decoding. With 4K resolution, video transmissions appear better than ever and utilize up to 6x less bandwidth. AV streams are completely secure over the network with AES 128-bit encryption methods, ensuring any sensitive data cannot be maliciously accessed. The



Series is incomplete without retaining the powerful video wall and multiview processing. The 120 Series also features screen rotation and mosaic video wall ability.

LOGIC'S GEN-NEXT PROFESSIONAL DISPLAYS REDEFINE VISUAL COMMUNICATION

LOGIC, one of the prominent solution providers in the industry and a subbrand of Online Instruments India Pvt. Ltd., offers a comprehensive range of cuttingedge products.

Introducing LOGIC's Professional Displays, a game-changer designed to captivate and engage. These innovative displays deliver dynamic content that resonates with users' audience and drives action. Experience the future of advertising with LOGIC'S Digital Signage Displays. With high-definition visuals, rich colors, and interactive content, they offer businesses unprecedented flexibility, transforming communication and setting new standards in marketing.

LOGIC Professional Displays support multimedia playback directly from USB, eliminating the need for complex wiring or additional devices. This feature allows the users to easily share presentations, videos, or images, making these displays perfect for boardrooms, classrooms, or retail spaces.

The Displays facilitate seamless device connectivity through Screen Share Pro. This unique feature allows multiple users to connect their devices to the display, promoting collaboration and ensuring everyone's ideas can be seen and heard. The sleek, symmetrical design with a narrow bezel allows the display to seamlessly blend with any environment, whether it's a modern office space, a bustling retail store, or a high-tech classroom.

The high-performance system ensures



LOGIC Professional Displays support multimedia playback directly from USB, eliminating the need for complex wiring or additional devices

smooth operation, even when multiple users are connected or when high-resolution multimedia files are being played. LOGIC has also incorporated features like screen splicing for stunning video wall experiences. This feature allows multiple displays to be connected, creating a larger and more immersive viewing experience. For businesses, this can be a game-changer, allowing them to create eye-catching displays that draw in customers and make a lasting impression.

The remote screen control feature simplifies management, allowing you to easily control the display from a distance. Whether users are adjusting the volume, changing the content, or turning the display on or off, they can do it all with the touch of a button. This feature is particularly useful in large spaces, where

accessing the display can be difficult. With LOGIC Professional Displays, efficiency and functionality in visual technology have been taken to new heights.

Digital signage displays are revolutionizing the way businesses communicate, transforming mundane spaces into dynamic, engaging environments. In retail, these innovative tools are not just displays, but persuasive storytellers, highlighting product features, showcasing special promotions, and presenting real-time reviews that enhance the customer experience.

In the hospitality industry, these displays are the perfect concierge, offering real-time updates on services, amenities, and nearby attractions. They are the ultimate customer

service tool, enhancing the guest experience by providing the right information at the right time.

In corporate settings, they are the modern bulletin boards, showcasing company news, KPIs, and employee recognition. They foster a culture of transparency and recognition, improve communication, and boost employee morale.

In the healthcare sector, displays have evolved into crucial communication tools, providing patients with vital information, real-time updates, and educational content. They serve as a comforting guide in an often overwhelming environment, delivering clear, concise messages that can alleviate anxieties and improve patient satisfaction.



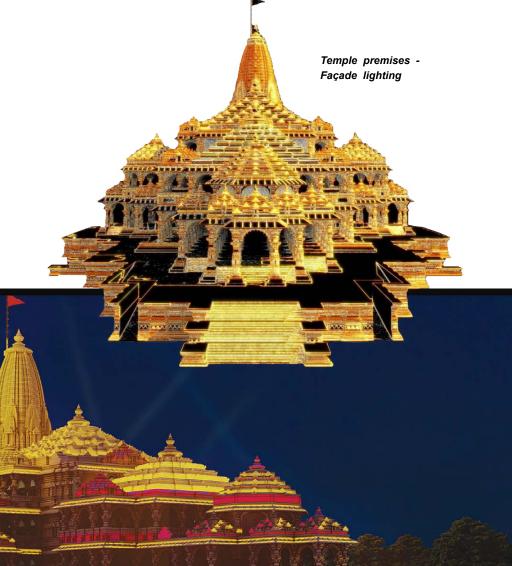
Narendra Naidu of Rhino Engineers Makes Ayodhya's RAM MANDIR Bask in LUMINESCENT GLORY

Naidu's AV consultancy firm Rhino Engineers successfully achieves the first phase of the temple's lighting design and AV installation

Ram Mandir, a temple constructed in the holy town of Ayodhya, is more than a brick-and-mortar structure. Built with love and devotion for devotees of Lord Ram by the devotees of Lord Ram, the massive temple, spread over 2.7 acres of land, witnessed an on-site footfall of more than 5 lakh visitors on the day of the consecration ceremony. As AV and lighting consultants Rhino Engineers undertake a rigorous process of planning, analysing, and evaluating the site before the final installations, AV-ICN Expo Magazine team gets in touch with Narendra Naidu, Managing Director, Rhino Engineers Pvt. Ltd. and Yash Mevada, Project Manager, Rhino Engineers Pvt. Ltd. to understand more about the lighting design and AV installation deployed at the Ram Mandir site in its first phase.

symbol of devotion for millions of devotees around the world, the Ram Mandir, a temple located at the site of *Ram Janmbhoomi*, Ayodhya and constructed around 2.77 acres with 70 acres of total land area, garnered worldwide attention and aplomb, courtesy its magnificent architecture, during the consecration ceremony held on 22nd January 2024. The temple, spanning 380 ft. in length, 250 ft. in width, and 161 ft. in height with three floors, 392 pillars, and 44 doors, is enveloped in the Indian Nagara architectural design. Rhino Engineers' team played a crucial role in creating this modern architectural marvel with the installation of AV systems, lighting, and PA systems.

The newly constructed Ram Mandir attracts national and international audience setting a perfect example of the blend of innovation and architecture with lighting design and AV installations on the site



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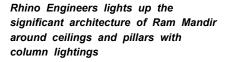
ILLUMINATIONS at Ram Mandir

The temple's premises are illuminated with several types of lighting designs in various forms such as general lighting, ambient lighting, architectural lighting, façade lighting, and pathway lighting, designed by Rhino Engineers. 200 KA light arresters have been installed over the temple structure to protect it from lightening. Lightning Protection System (LPS) have also been installed to

ensure that all related activities are executed in accordance within the outlined specifications and requirements and all applicable safety measures are implemented throughout the entire process.

Along with illuminating the idol of Lord Ram in the sanctum sanctorum and the premises, the team also worked on MEPF (Mechanical, Electrical, Plumbing, and Fire Detection and Protection System) design of the site. This included HVLS fan proposed in the temple premises and VRF system proposed in the Parkota premises, power distribution system, protection against storm water drain, and fire extinguishers in the enclosed areas of the temple premises and systems like fire detection & alarm, automatic sprinkler system, liner heat sensing and more along with the fire extinguisher in the Parkota premises. Furthermore, the International Civil Aviation Organization (IACO) specifies two main requirements of aviation obstruction lights: height, number & location















of lights, and light intensity. Types of AOL's required depending on the height include:

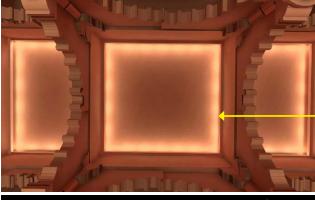
- From 6 m to 45 m: Low intensity AOL's
 A minimum radial light intensity of 10
 cd in red. (Recent requirements for 3G
- cellular towers are 32 cd).
- 2. From 45 m to 150 m: Medium intensity AOL's A minimum radial light intensity of 2000 \pm 25 % cd in flashing red.
- 3. Above 150 m: High intensity AOL's -

White light of 200000 cd for daytime visibility and red light of 20000 cd for night; all flashing. Also, medium intensity lights can be used if the structure is painted with bands as specified.

PA (Public Address) systems

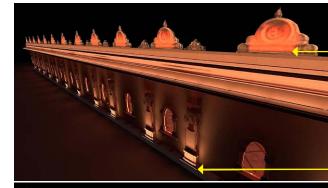
The goal of a PA system is to provide "public address", or a way to transmit audio communication to a group. This transmission can begin with a microphone, which is a device that can assist in magnifying an audio source's volume.

While the generic use of PA/VA is for



Strip light 14.4W/Ceiling Lighting

LED RGBW





LINEATE 24W 2200K



LINELIGHT 40W RGBW 18X56° (1mtr) - For columns uplighting



FLEXILINELED14.4W/M3000K - For outer strip lighting



FLEXILINELED14.4W/M3000K - For Ceiling strip lighting

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beaming important communications, at Ayodhya's Ram Mandir, it is also meant for playing ritual chants to contribute to the spiritual ambience of the place. Stating the role of PA systems, Mr. Naidu said, "A place of worship requires PA system for several use cases. It can be used for general announcement as well as in the case of emergency, PA systems can also be utilized to create spiritual ambience by educating the devotees by playing ritual chants." He adds, "The public address/voice announcement system is designed to divide the entire premises into multiple number of zones and programmed to voice the communication selectively to the required zones as per the need. It is always integrated with the security system."

PA system components used on the site include:

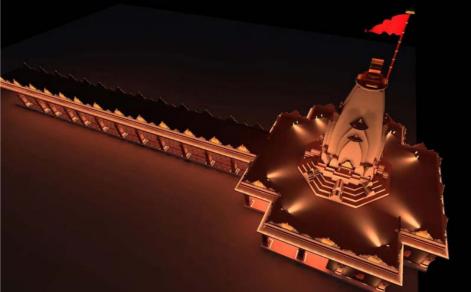
- · Announcement Console (microphones)
- Amplifier/DSP/audio mixer
- · Zone selector
- Speakers
- Equipment rack

Yash Mevada notes, "The design specification included installation of as many as 133 IP speakers from German audio major Fohhn Audio, whose output is augmented by 13 units of Fohhn Audio amplifiers that are powered by a Symmetrix DSP, and a wall mount controller from Symmetrix. For capturing the audio from speakers, four units of microphones from Audio-**Technica** are specified to be integrated. Furthermore, the PA/VA set-up as well as background music featuring Fohhn Audio was installed by TSG Optimus India."

Digital displays around the **Temple and Parkota premises**

The ease of viewing live aarti from anywhere around the temple premises was made possible with cutting-edge AV systems. The system has been designed





LINEATE 24W 2200K (1mtr) - For top dome part lighting and RANGER 120W DMX -For parkota dome lighting

in such a manner that additional displays can be installed based on the requirements. However, the installation is in progress around the Parkota premises.

LED display use cases around the temple premises include:

- · Live Aarti
- Content play
- Advertisement
- General announcement

• Emergency broadcast display

- Route guide
- The video management system has been designed as one of the most sophisticated systems in the world. Apart from a slew

of built-in features like recording, redundancy/back-up, failover management, and advanced SDK with APIs to provide monitoring and control, it is designed to record and stream 4K, H.265 formats, compatible interactive HTML maps, and integration with Google Earth.

It is also scalable to add as many as 10,000 cameras in single management system and as many as 268 surveillance cameras from American security and surveillance solutions with major PELCO Incorporated (till now). The cameras comprise of three varieties bullet, dome, and PTZ. Furthermore, the site is installed with the digital signage and video display elements, amounting to as many as 31 units of Samsung 55-inch 4K displays that are placed across the temple premises at many vantage points. It is also scalable to accommodate any additional displays that may be required in future. The AV-over-IP job is performed to perfection by as many as 13 units from Lightware.

Adding to the intent of illuminating every nook and corner of the temple, the lighting design at the Ram Mandir required the fixation of:

• 10W 3000K in-ground burials with asymmetric light distribution for flooring around pillars, keeping nine inches

The temple's design services include types of lighting design in the peripheric of Ram Mandir temple campus like general lighting, ambient lighting, architectural lighting, façade lighting, and pathway lighting by Rhino Engineers.

- distance from their base
- 24W linear wall washer ground burial for sanctum sanctorum illumination
- 2-way customised light for ceiling and wall grazer with spotlight 10W
- 10W per meter LED profile lights for handrails
- 5W per meter LED profile lights for ramp lighting
- Spotlight 20W for illuminating the idol of Lord Ram in the sanctum sanctorum
- Spotlight 4W for the smaller idol of the Lord
- Mono 15W, 10W and 7W flexible lighting in layer for the dome (Mandapas)
- 5W Washer lighting for recessed pathway step illumination

Rhino Engineers Go Beyond AV & Lighting:

Besides installation of AV, lighting, and PA systems at the temple, the team at Rhino Engineers also installed the power distribution system, which was design keeping mind the continuity and reliability of power supply, flexibility of operation, concentration/distribution of loads, safety of personnel and equipment, investment and operational costs, compliance with various statutory

provisions such as Indian Electricity Act and Rules, National Electrical Code and the relevant B.I.S. Specifications and State Electricity Authority norms, easy future extensions/modifications, ease of maintenance, maximum interchangeability of equipment resulting in minimum inventories and spare parts, minimum fire risk, and simplicity of operation. Various areas of Shree Ram Janmabhoomi Tirtha Kshetra, Ayodhya are being protected against Storm Water Drain. The systems used are in line with various guidelines including NBC 2016 / CPHEEO MANUAL.

Nothing in the temple is inflammable. Therefore, there was no provision for sprinkler system or fire alarm system. As per the instructions of the Trust, Rhino Engineers provided fire extinguishers only in the enclosed areas. In the Parkota premises, Rhino Engineers installed automatic sprinkler system, fire extinguisher, addressable fire detection & alarm, linear heat sensing, clean agent-based ceiling mounted modular fire extinguishing units, Aerosol based fire protection system for the electrical panels located inside the electrical room, clean agent gas-based (FK-5-1-12 / NOVEC 1230) fire extinguishing system for CCTV Monitoring Room and Sound Control.

Rhino Engineers has also proposed HVLS fan in the Temple premises and VRF system in the Parkota premises.

Conclusion

With the intent to create a large visitors attraction venue, the team at Rhino Engineers, led by Narendra Naidu, managed to blend innovation with the profound Indian architecture. Reminiscing on the lighting design and AV installation at the pious temple, Mevada remarked, "Keeping in view the textural and structural challenges of running long cables through and/or along the hard and intricately sculpted stone pillars and walled surfaces, the think-tank at Rhino Engineers came up with an innovation. For the entire external façades and exterior pillars, the team proposed replacing conventional lighting of cables and irregular lighting fixtures with laser projectors."

Achieving the first phase of the temple's lighting design and AV installation successfully on the ground floor, the team strives to fulfil the project's requirement within the first floor and second floor of the temple premises and the area around Parkota premises shortly, as claimed by the Rhino Engineers' team.



WALLECT Engages IIIs Mall Visitors with CININDOVATIVE CHEST COLUMN Videowall Integration

Vallect, one of the leading audiovisual integration service providers, transforms one of the high street Delhi malls with innovative videowall design. Discussing the venue's dynamic videowall integration, RAKESH THAPLIYAL, Customer Success Manager, Vallect along with the team, briefed the AV-ICN Expo **Magazine team** on the successful AV integration for impactful advertising experiences at the shopping hub.

Vallect recently deployed LED Videowall solution for a high street mall in NCR. It has 330 brands, 80 kiosks, 5 shopping zones, and 75 eateries, including PVR Cinemas

with 7 screens. Vallect, as one of the preferred vendors, has established a lasting partnership with the brand. **Rakesh Thapliyal**, Customer Success Manager, stated, "By combining advanced



Vallect reveals indoor and outdoor advertising platform for the mall with 14 dynamic videowall



By combining advanced integration with the installation skills, the team has created a powerful and dynamic videowall indoor and outdoor advertising platform for the mall. We have collectively deployed 14 videowalls across the space.

Rakesh Thapliyal, Customer Success Manager, Vallect



integration with the installation skills, the team has created a powerful and dynamic videowall indoor and outdoor advertising platform for the mall. We have collectively deployed 14 videowalls across the space."

Commenting on the design integrated by Vallect, Anshul Jain, Assistant Manager, Sales, Vallect, added, "As part of the upgrade, we integrated the latest solutions from Vallect to enhance the video walls' performance and functionality. This collaboration reflects our dedication to leveraging innovative technologies for an impactful advertising experience. Overall, the project marks a significant transformation, combining our installation expertise with our advanced integration for a powerful cross advertising platform."

Designing the venue

The team used multiple inventory and components that play vital roles in setting up, operating, and managing video wall installations. These components are essential in guaranteeing top-notch display perforand ensuring seamless functionality across diverse indoor and outdoor environments. Some of the components include:

Indoor LED Videowall:

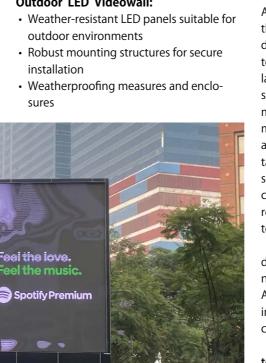
- LED panels for the indoor display system
- · Mounting hardware for installation
- · Power supplies and cabling
- · Control systems for managing content and display settings

Indoor LED Videowall:

- LED panels specifically designed for indoor use
- Installation brackets and frames
- · Necessary power distribution and cabling
- Control systems and software for opera-

Outdoor LED Videowall:

mance, enabling precise content control,



The videowall was meticulously designed with the latest display and advertising technologies

· Advanced control systems for outdoor display management

Controller:

- Control hardware/software from Novastar for LED video wall management
- · Signal processors and interfaces for optimizing display output
- · Remote control devices or software interfaces for user interaction

Digital Signage:

- Digital signage software platform from Xtreme Media
- Media players or devices for content playback
- Content creation tools or integrations
- · Network infrastructure for content distri-

While informing the industry about the integration, the team also mentioned that a thorough site recce was conducted by the team while assessing both the site and its infrastructures. Subsequently, the expert validation team ensured that the design and structure met the necessary standards. Not only that, prior to the installation, the team had to dismantle their existing structure.

Executing the integration

Executing a videowall installation project, the team encountered multiple challenges. As this was a fully functional site, adapting to the existing structures posed complexities, demanding adjustments & skillful execution to ensure seamless integration of new installations. Operating within a limited nighttime schedule from 11 P.M. to 6 A.M. required meticulous planning and execution to maximize productivity. To meet strict deadlines, additional manpower was crucial to expedite tasks. Moreover, managing the logistics of specialized equipment like boom lifts and cranes for outdoor video wall installation required careful coordination and expertise to ensure smooth operations.

Existing structure: The team encountered difficulties due to the need to integrate new installations into the existing structure. Aligning the new components with the old infrastructure posed challenges in terms of compatibility and adjustments.

Working in a limited time frame (11 P.M. to 6 A.M.): Operating within a constrained time frame, specifically from 11 P.M. to 6 A.M., presented challenges in achieving project milestones efficiently. It demanded precise planning and execution to ensure tasks were completed within this limited window.

Continued on page 32



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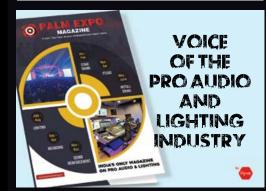




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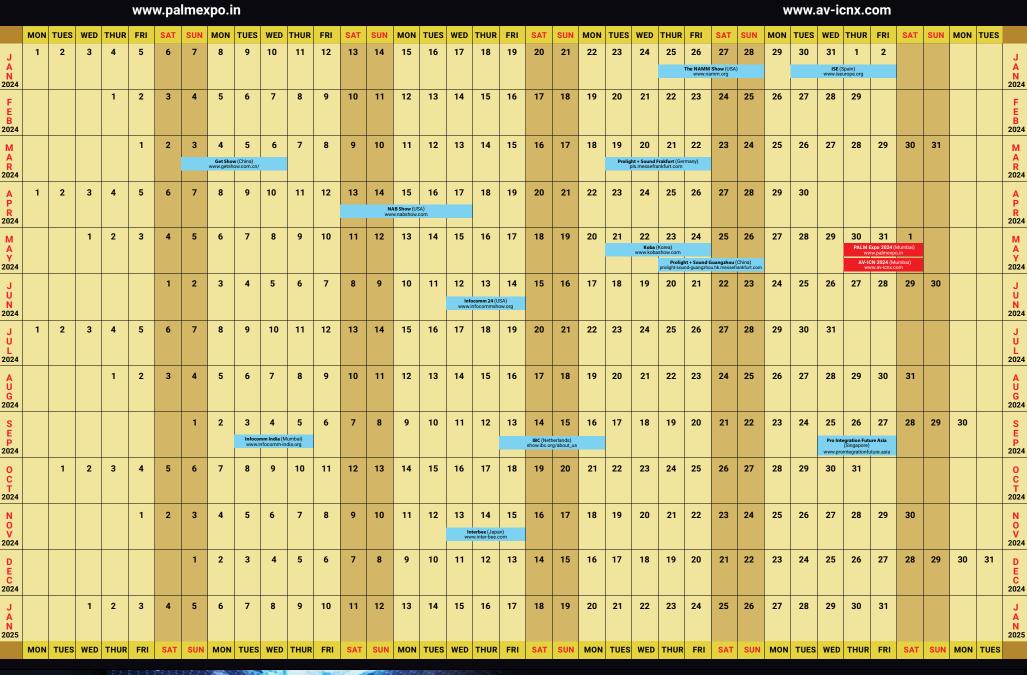






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SENNHEISER TEAMCONNECT CEILING MEDIUM NOW SUPPORTED BY CRESTRON AUTOMATE VX

Valued strategic partner integrates Sennheiser's latest ceiling microphone into multicamera switching solution, driving more equitable meeting experiences

Sennheiser, one of the first choices for advanced audio technology that makes collaboration and learning easier, announced that its TeamConnect Medium (TCC M) ceiling microphone for mid-sized meeting rooms and lecture or collaboration spaces has been integrated into the

collaboration spaces and lecture halls. High-quality audio and intelligent video technologies are vital to supporting a critical and dynamic collaboration experience.

With the Automate VX solution, multiple cameras around the room work together to track active speakers, while removing software, integrators can now streamline the setup of larger systems, making the process more efficient and time effective.

"This exciting integration between Sennheiser's TeamConnect Ceiling Medium and Crestron's Automate VX brings optimum equity to meeting participants in meeting rooms, lecture halls, and collaboration spaces," said **Bob Bavolacco**, Director of Technology partnerships for Crestron. "It provides a premium Sennheiser audio experience coupled with the unparalleled Crestron Automate VX multi-camera switching technology."

Launched earlier this year, TCC M delivers all the innovation and features of the award-winning TeamConnect Ceiling 2 (TCC 2) to a new segment of the meeting space market. With a coverage area of up to 40 m², customers can now bring the power of TCC 2 to their mid-sized meeting space, with a sleek design and at an attractive price-point.

The TCC M offers the same ceiling installation options as the TCC 2, but in a round shape. It can either be surface-mounted, suspended, or flush-mounted, allowing for cable-free tables and flexible furniture arrangement.

"This integration with Creston's Automate VX is a further example of the flexibility of the TCC M, a member of the TeamConnect Family Solutions," said **Charlie Jones**, global alliance & partnership manager at Sennheiser. "It also demonstrates our commitment to working with our partners to deliver solutions that create inclusive and productive collaboration experiences, whether participants are in the room or joining remotely."



The integration of the complete Sennheiser TeamConnect Ceiling Family into Crestron's Automate makes the process more efficient and time effective

Crestron Automate VX voice-activated speaker tracking solution.

Automate VX technology enables a high-quality meeting experience with production-style cuts across a variety of applications including corporate board-rooms, multipurpose spaces, and training rooms. The combination of TCC M and Automate VX technology leads to more inclusive meetings, especially for mid-sized

distractions that are typically visible when a camera pans, tilts, or zooms. As the conversation moves around the room, TCC M's patented automatic dynamic beamforming technology ensures the speakers are continuously being heard.

With the integration of the complete Sennheiser TeamConnect Ceiling Family into Crestron's Automate VX technology and the Intelligent Video Designer

AV-ICN Expo Magazine's upcoming issue (March-April 2024) is The Show Preview Issue.

The magazine will feature a Preview of the Expo.

AV-ICN Expo Exhibitors are welcome to submit 4-5 highlight products set to be exhibited at the Expo for consideration.

Contact: RITIKA PANDEY, Editorial Assistant, AV-ICN Expo Magazine at ritika.pandey@hyve.group

EXTRON ANNOUNCES THE AVAILABILITY OF CA 163 INTEGRATION-FRIENDLY COLUMN ARRAY SPEAKER

Extron announced the immediate availability of the CA 163, an easy-to-install column array speaker, designed to combine excellent speech intelligibility, a contemporary aesthetic, and integration-friendly mounting options. Two mounting systems are available to accommodate different room layouts and sizes. Ideal for acoustically challenging environments, it features a focused vertical dispersion that efficiently directs sound to listeners instead of reflective ceilings or floors. Available in paintable black or white, the CA 163 is an integration-friendly solution for ambient environments.

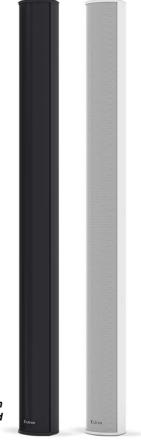
"One of the most frequent requests we've received has been for an Extron column array speaker," says **Casey Hall**, Chief Marketing Officer for Extron. "Our engineers set out to design a new solution that not only looks as great as it

sounds, it's also extremely easy to install. We are very excited to expand Extron speaker offerings into the larger applications served by the CA 163."

The wall mounting system is designed for one person to mount the CA 163 to the wall securely and a wall-mounting template is included that makes it quick and easy to accurately position the speaker mounts. Once the mounts are installed, an innovative slot on the rear of the speaker easily allows it to slide up and down to the desired height.

The CA 163 PT includes a pan & tilt mount for maximum speaker aiming flexibility, while the CA 163 LP includes a low profile mount for minimal protrusion from the wall.

CA 163 is designed to combine speech intelligibility, contemporary aesthetic, and integration-friendly mounting options



BARCO UNVEILS TWO NEW PROJECTOR PLATFORMS IN ITS FLAGSHIP RANGE

Barco, one of the global leaders in visualization technology, announced the launch of two new projector families, the I600 and QDX. The new flagship line projectors are designed to redefine the standards of visual excellence and versatility, giving higher resolutions and brightness levels in a more compact design than currently available on the market. The products were introduced during the Integrated Systems Europe (ISE) tradeshow in Barcelona.

I600: Expanding immersivity with compact power

The I600 4K UHD single-chip laser phosphor projector is visioned to set new benchmarks in image quality for immersive experiences. It is designed to offer exceptional colour fidelity, high-resolution, and a long lifetime. With its compact and lightweight design, weighing under 23 kgs (50 lbs), the I600 is the most portable in its category.

The new Barco-patented SuperShift technology ensures the sharpest 4K UHD





1600 4K UHD single-chip laser phosphor projector and QDX projector by Barco

images, and the integration of next-gen Barco Pulse electronics ensures a seamless experience, delivering smoother images at the lowest latency.

Frederik Bouckaert, Senior Product Manager for 1600, summarizes: "The 1600 takes affordability and high-resolution projection to new heights. This projector is designed for long-lasting image quality, multichannel compatibility, and versatility in a wide range of applications like artainment, museums, corporate events, simulation environments, projection mapping, and many more."

QDX: Brighter. Sharper. Lighter. Faster.

The Barco three-chip portfolio also

welcomes a new addition with the QDX projectors. The feature-packed projector elevates visual experiences with up to native 4K resolution, REC. 2020 colours and brightness levels going up to 40,000 lumens - boxed into a lighter unit to optimize transport costs and installation time

QDX Senior Product Manager **Alexis Skatchkoff** is excited about the launch saying that "customers and partners are eager to embrace the long-awaited nextgen three-chip projector in their fleet. And this first release is only the tip of the iceberg with new innovations in terms of light-source modularity coming in the next phases of the QDX roadmap."

INOGENI'S LATEST TOGGLE ROOMS STREAMLINES VIDEOCONFERENCING WITH BYOM/BYOD APPROACH

INOGENI is set to introduce the all-new Toggle Rooms for advance videoconferencing experiences through BYOM/BYOD approach. It's a new 4K BYOD/BYOM - 2PCs switcher for USB 3.0/HDMI devices and is designed to meet easy configuration requirements. The device ensures a pro-AV, unified communication system with a remarkable 4Kp60 resolution.

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

- 2. The product includes 2-meter USB-C 100W cable.
- 3. It features USB-C solutions tested up to 10 meters.
- 4. It can work with 1 or 2 monitors adaptable for 4Kp60 or 21:9 wide screens.

In the room PC mode for BYOD content sharing, the Room PC is the system that is currently selected to the main USB and HDMI peripherals. However, if the user would like to send HDMI content from the laptop's USB-C or HDMI connection to

supports the same features as the manual mode. It will only add the possibility to switch to the other detected source connection automatically if the selected source is disconnected.

Nataraju Upputuri, Founder and CEO, Nteck Systems, said, "With my experience with INOGENI Canada as OEM over last 5 years of our tie-up, we found that most of the products introduced by INOGENI are very well thought off and have been found successful in UC applications. This will surely be the case with TOGGLE



INOGENI Toggle Rooms allows users to seamlessly switch from a Room PC to a laptop host, ensuring a friendly and efficient meeting experience

device supports a power supply of 160W (85-264VAC 50/60Hz to 24V/6.67A DC), operating temperature of 0° to 45° C (32° to 113° F), and weights 770g with 9.89" x 4.32" x 1.28" dimensions. It has the ability to mount under the table or on a wall as an easy-to-use switcher.

TOGGLE ROOMS provides a 4Kp60 pro-AV and unified communication system that enables users to seamlessly switch from a Room PC to laptop host, ensuring a user-friendly and efficient meeting experience.

INOGENI's one cable solution to take control of the room:

 It offers flexible options with USB-C with power delivery 100W or USB-B + HDMI. the Room PC, it is possible to do so with the HDMI SHARE output connection. Furthermore, in the BYOM mode, the laptop is the system that is currently selected to the main USB and HDMI peripherals. The Room PC is completely disconnected from the setup.

The operating modes supported by Toggle Rooms include the automatic mode, which switches automatically to the last source (USB or HDMI) connected. If the current source is disconnected, the device will switch back to the other source if it is detected. Push-button action and remote control are also supported. Furthermore, the manual mode will enable you to force a specific source selection. Push-button action and remote control are also supported. The manual mode with fallback

ROOMS as well. That's because this product is a problem solver for integrators and clients across the globe in huddle rooms & soft VC rooms applications at affordable price." He adds, "I was also a small part of this product discussion from over a year and initial application thoughts to product released now, with many added features, is very well designed keeping in mind about most of the small, mid-sized applications in UC environment. INOGENI has assured us that we would be one of the first distributors to get hands on this product and are very excited, waiting for our first lot to reach us. With my vast experience in AV-IT & UC market, I personally foresee that INOGENI Toggle Rooms is a game-changer product in soft VC rooms."

To feature Product Launch News, Industry News, or AV Installation News contact:

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KGEAR LAUNCHES NEW SUBWOOFER AND MIXER AHEAD OF ISE 2024

Part of the **K-array** brand ecosystem, **KGEAR** has dropped two new product launches in the run up to ISE 2024. The pro-audio manufacturer introduces the **GU210 subwoofer** and **GMX4L mixer** to its product family, two releases that once

promise on quality or performance. The GU210 subwoofer is ideal for fixed installations, especially in environments where a discreet audio solution is required.

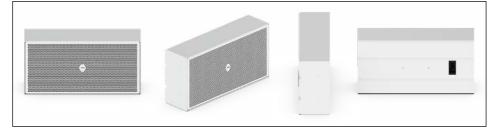
Enclosed within a stainless-steel cabinet and grille, the subwoofer boasts an

Launching alongside the premium subwoofer, the GMX4L mixer is an expansion of KGEAR's GM44L matrix and provides a complete solution for commercial, corporate and hospitality applications. Userfriendly controls and accessible advanced options also make the mixer ideal for a range of abilities.

The compact four-channel analog mixer comes with four mic/line inputs, one auxiliary line input, two balanced/unbalanced outputs and an adjustable output limiter. Sound can be customised using individual input assignment and +48V Phantom power. The GMX4L's built-in limiter also protects your system from peaks.

"This is a big development for KGEAR, as we didn't have a solution other than amplifiers and loudspeakers in our product portfolio," explains De Poi. "The GMX4L is a much-needed expansion of the line towards the electronics behind the amplifiers. It feels like a natural progression for us and we're looking forward to seeing the creative ways in which it can be used."

The mixer has been designed for use across hospitality, commercial, corporate, education and small venue applications. Reliable and efficient, the GMX4L integrates seamlessly with KGEAR's amplifiers and the GM44L matrix for a complete audio solution.



A view of KGEAR's GU210 subwoofer

again showcase the ingenuity of K-array's engineering.

KGEAR specialises in versatile, accessible, and easy-to-use pro-audio solutions for a wide range of AV applications, including hospitality, leisure, corporate and education environments. The brand offers an expanded portfolio of solutions for everyday audio needs that don't com-

IP rating of IP64, making it appropriate for indoor and outdoor installations. The GU210 also comes in both a black and white finish, allowing it to slot seamlessly into any project design.

"The launch of the GU210 is significant."

"The launch of the GU210 is significant because it fills a gap in our portfolio by providing a performance subwoofer with a versatile 10" form factor," explains **Lo**-

renzo De Poi, Brand Manager at K-array and KGEAR. "This expands the pairing possibilities and opens up more opportunities for fixed installations."



GMX4L mixer is an expansion of KGEAR's GM44L matrix

A&T INTRODUCES ONE-TOUCH SOLUTION FOR MEETING ROOMS

A&T, one of the video conferencing solution providers, introduced the exclusive one-touch meeting device. Slimmer with a sleeker display, A&T's one-touch solution seamlessly bundled with AVer conferencing systems provides unique meeting experiences.

The device features include – powerful processors for top-tier conferencing performance, improved audio with versatile speakerphones that support a full-duplex microphone array and daisy-chain speakerphone, and innovative single-cable mechanism for seamless connectivity. The new A&T's MS Teams and Zoom Room Solutions is scalable across room sizes, featuring one-touch meeting start.



A&T's one-touch meeting device provides unique meeting experiences, compatible with MS Teams and Zoom

ADTECHNO ANNOUNCES DANTE AV ULTRA ENCODER AND DECODER

ADTECHNO Inc. announced the launch of its latest Dante AV Ultra Encoder and Decoder lineup: DAV-01HT, DAV-01HR, DAV-01ST, and DAV-01SR. These cutting-edge devices embody a state-of-art AV over IP solution, meticulously developed to align with Audinate's Dante AV Ultra standard widely acknowledged as the industry standard for Media over IP. These devices facilitate the transmission of 8-channel audio, up to 4Kp60 4:4:4 video, USB, IR, and RS-422 serial commands over a 1GbE network.

What sets them apart is the seamless integration with one of the renowned Dante Controller software, enabling AV

into both 12G-SDI and HDMI, with simultaneous output through all four ports, catering to simultaneous video output to multiple displays and AV devices.

All models come equipped with a 2.0-inch IPS panel, offering video preview and audio level meter displays. Moreover, users can access Dante settings menus for adjustments such as sampling rate and latency using an intuitive rotary switch knob. The addition of a headphone jack facilitates audio monitoring, allowing users to confirm received audio through headphones.

Dante AV Ultra enables the transmission of intricate 4K60 graphical content with

- ProAV-optimized Colibri codec preserves visually lossless quality for graphical and video contents.
- Utilizing a single network clock enables perfect audio and video synchronization.
- The DAV-01ST features 12G-SDI and HDMI input ports (HDMI exclusive to DAV-01HT).
- The DAV-01SR features dual 12G-SDI and HDMI output ports per channel (DAV-01HR exclusively offering dual HDMI output).
- 2.0-inch IPS screen for video images preview, audio level meters and Dante setting feature.
- Incoming audio check using a headphone output.
- Auto-downscaling and HDCP revision conversion on HDMI output ports.
- HDCP 1.x/2.x compliant with advanced EDID management.
- PoE+ (30W IEEE802.3at PoE+) or DC (12V) power to power the device.
- EIA Rack mountable 1U half-rack width.
- Compatible with Dante Controller, Dante Studio and Dante Domain Manager (DDM)

"We are delighted to announce ADTECHNO's entry into the Dante AV family," stated Wim Roose, Audinate Senior Product Manager. "Recognized as a leading force in the Professional AV domain, ADTECHNO brings a fresh perspective to our ecosystem with their dedication to delivering end-user-centric solutions. The introduction of the Dante AV Ultra Encoder and Decoder marks a significant leap in ushering next-gen capabilities. These products, specifically designed for critical environments like stadiums, arenas, theaters, and places of worship, exemplify ADTECHNO's commitment to seamless and high-quality audiovisual experiences. Our collaborative journey with ADTECHNO is one we value, and we eagerly anticipate the continuous unveiling of innovative Dante AV products in the days to come."





professionals to effortlessly manage and route each signal individually, providing a streamlined and efficient workflow for audio and video distribution.

The Dante AV Ultra Encoder, DAV-01ST, features 12G-SDI and HDMI input ports (HDMI exclusive to DAV-01HT), converting video and audio into Dante AV Ultra signals. Notably, it includes dedicated output ports for each input, supporting loop-out connections for signal verification on preview displays and seamless integration with other video transmission equipment.

Conversely, the Dante AV Ultra Decoder, DAV-01SR, stands out with dual 12G-SDI and HDMI output ports per channel (DAV-01HR exclusively offering dual HDMI output). This configuration allows the simultaneous conversion of Dante signals

high quality, visually lossless results, and extremely low latency. Tailored for professional AV environments such as stadiums, arenas, theaters, churches, schools, offices, and boardrooms, this solution prioritizes minimal latency in both video and audio, ensuring optimal performance in demanding settings.

Dante AV Ultra Encoder and Decoder feature highlights

- Transport up to 4K HDR UHD video sources (3840 x 2160 @ 60Hz 4:4:4, 4096 x 2160 @ 60Hz 4:4:4, and 4K @ 60Hz 4:4:4) with imperceptible subframe latency over 1GbE Network.
- Advanced signal management for independent routing of audio, video, USB / KVM, RS-422 and IR.

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KRAMER INTRODUCES NEW SERIES 3 PRODUCTS, PANTA RHEI, AND AVOIP SOLUTIONS - KDS-17 AND KDS-100 AT ISE 2024

Kramer's Innovative Series 3

Kramer, one of the leading audio-visual experiences companies announces the expansion of its innovative Series 3 product line.

Kramer's Series 3 represents the essence

lifecycle, offering an unprecedented suite of services for System Integrators, IT/AV managers, and end-users.

Panta Rhei is designed to provide customers with a unified platform that is adept at managing not only all Kramer streaming over 1GE networks. Ideal for spaces requiring 4K60 4.4.4 video quality with minimal latency, it supports up to 1,000 video sources, making it suitable for command centers, meeting rooms, digital signage, and more.



Kramer's Series 3 represents the essence of high-performance audio-visual experiences, offering premium quality with uncompressed 4K60 4:4:4 video, zero latency, and advanced connectivity

of high-performance audio-visual experiences, offering premium quality with uncompressed 4K60 4:4:4 video, zero latency, and advanced connectivity features like fast switching, single-cable extension, and USB-C interfaces.

Series 3 integrates multiple product lines, forming a unified foundation for any deployment scenario, ensuring a singular, seamless user experience. Furthermore, Series 3 provides full coverage of all AV connectivity protocols, offering compatibility with a wide range of signal management products. This extensive support spans from legacy to advanced protocols, facilitating effortless integration with any preferred collaboration devices.

Kramer's Groundbreaking Panta

Kramer also announced the launch of Panta Rhei, a single, centralized, cloudbased platform designed to reform the audiovisual ecosystem experience. Panta Rhei encompasses the entire audio-visual



Panta Rhei is a service-based platform that not only simplifies the administration and control of audio-visual systems but also elevates their performance

installations but also seamlessly integrates with third-party devices.

"Panta Rhei reflects Kramer's deep commitment to our customers and the entire

audio-visual industry. This platform is the result of two years of intensive development, leveraging our four decades of expertise in the audio-visual sector. With Panta Rhei, we're embracing a significant shift from hardwarecentric solutions to a more software-driven approach, signaling a new era in audio-visual technology," says Gilad Yron, Kramer's CEO.

Kramer's Advanced KDS-17 and KDS-100

Kramer announced the expansion of its AVoIP portfolio at Integrated Systems Europe (ISE) 2024 too. This expansion features the introduction of two innovative prod-

ucts - KDS-17 and KDS-100 - designed to provide high-performing, scalable solutions for diverse AVoIP streaming needs.

KDS-17

The KDS-17 offers ultra-high performance and scalability, utilizing JPEG2K-like compression for superior video and audio

KDS-100

The KDS-100 leverages the H.264/265 open standard for efficient bandwidth usage and interoperability. Its dual streaming capabilities make it perfect for environments requiring live recording. Suitable for operations rooms, university auditoriums, and command centers, the KDS-100 provides high-quality 4K60 4:2:2 video streaming and supports up to 1,000 video sources, facilitating easy deployment and scalability for any network AV installation size.

Dorit Bitter, Kramer's EVP of Product





KDS-17



KDS-100

and Technology, comments, "The expansion of our AVoIP portfolio with KDS-17 and KDS-100 represents a pivotal step in our ongoing commitment to innovation and excellence. These products exemplify our dedication to providing intuitive, scalable, and secure solutions.

WYRESTORM INTRODUCES NHD-120 IN-WALL ENCODER

Further strengthening the NHD-120 H.264/H.265 lineup, **WyreStorm** announced the NHD-120-IW-TX In-Wall Encoder to add more flexibility and functionality to the newly released 4K AV-over-IP series.

The in-wall encoder was made specifically for several applications where a connectivity interface is required for ad-hoc connection of devices into the NetworkHD existing system on the network. Classrooms, meeting rooms, courtrooms, and several other environments can take advantage of this in-wall interface. Connecting PTZ cameras, for example directly to the unit via HDMI and to provide camera the ethernet connection with dedicated ethernet port, is now easy with the in-wall encoder.

The encoder is ideal for educa-

tion (K-12, universities, training facilities) and corporate settings (boardrooms,



The NHD-120-IW-TX In-Wall Encoder is a 2-Gang In-Wall unit, supporting up to 4K30 4:2:0, which makes it ideal for installation in classrooms, meeting rooms, courtrooms, and similar indoor environments

.....

huddle spaces), allowing easy plug-andplay connectivity for laptops in desks or

tables, front-of-classroom teacher use, and podium access in lecture halls for presentations.

The new NHD-120-IW-TX is a 2-Gang In-Wall unit that runs on PoE and supports up to 4K30 4:2:0. It features audio de-embedding, an IR port for source control using Companion app or third-party control systems, and runs over 1GbE Networks. Additionally, scaling capability is available for mixing 4k and 1080p screens throughout the install.

The added security features and Multiview receiver compatibility make it particularly ideal for government and command center applications where secure and reliable AV over IP multi-streams on a single display are a prerequisite.

AV INTEGRATION: HOSPITALITY SEGMENT

Continued from pg 23

Efficient Manpower Planning: To adhere to the project deadline, the team required extra manpower. This need for more resources was crucial to expedite tasks and ensure timely project completion.

Managing logistics for specialized boom lifts and cranes for outdoor videowall at height: The installation of the outdoor video wall, particularly at a height, required specialized equipment such as boom lifts and cranes. Coordinating and operating this machinery posed logistical challenges, demanding expertise, and careful planning for safe and efficient installation.

Experience and Success

Customers loved the video wall setup at the high street mall as claimed by the Vallect team. They thought the video walls and digital signs looked fantastic, showing clear and eye-catching images, and truly creating an immersive experience. They found it easy to control the content appearing on all the videowalls, which was highly appreciated. The videowall got people more interested in the mall and made their visit enjoyable. As

VALLECT ENGAGES MALL VISITORS WITH INNOVATIVE LED VIDEOWALL INTEGRATION



per a customer, the team did a great job at handling challenges and executing the project within decided timelines, which enabled great customer experience. Based on the client's feedback and response, Vallect not only met but truly surpassed the project's requirements. Reflecting on the success of Vallect's AV integration project, **Ramsaran**, Projects Team, Vallect, expressed, "We successfully installed and managed 14 LED Videowalls at a leading high street mall, enhancing performance, functionality, and visitor engagement. The positive feedback from the client suggests that Vallect effectively fulfilled the project's objectives, demonstrating their capability in delivering quality video wall solutions within specified timelines."

Integration items covered by Vallect:

- 1. Indoor LED Videowall P3 8444mm x 1344mm 10 Units
- 2. Indoor LED Videowall- P3 8060mm x 1344mm 2 Units
- 3. Indoor LED Videowall- P2.9 5000mm X 3000mm 1 Units
- 4. Outdoor LED Videowall- P4 5760mm x 3840mm 1 Units
- 5. Controller
- 6. Digital Signage

BIAMP INTRODUCES VOLTERA D AMPLIFIED LOUDSPEAKER CONTROLLERS

Biamp, one of the leading suppliers of professional audiovisual solutions, at ISE 2024 in Barcelona, Spain, introduced the Voltera D series of networked amplified loudspeaker controllers (ALCs), which offers powerful onboard digital signal processors, sophisticated tools for tuning rooms, and a host of other one-of-a-kind features.

Voltera D ALCs are available in 1200watt or 2400-watt configurations across four or eight channels. The Voltera D line is easy to use and configurable by either Tesira or the new Biamp VenueTune software, depending on user preference and audio network protocols.

Voltera D is one of the very few lines of amplified loudspeaker controllers in the market to feature redundant network audio, support of failover between mains power and backup generators without a reboot, and group-controlled raised cosine EQ—making it attractive for large systems.

Voltera D is also the only line of ALCs in the market to provide support of both AVB and Dante and accurate raised cosine EQ below 160 Hz, which results in more precise elimination of room modes and optimization of the low-frequency performance of a system. It is also the only 8 x 150-watt ALC on the market, with competitors starting at 250 to 500 watts per channel, which may be expensive overkill for many applications.

The new VenueTune software offers in-depth control through an intuitive graphical interface, which uses simple 2D floorplans and a staged workflow to guide

Voltera D ALCs are available in 1200-watt or 2400-watt configurations across four or eight channels

system designers and installers. The software also provides extensive performance and usage logging over time, enabling IT personnel, AV pros, and venue managers the ability to optimize performance after installation.

All Voltera D models provide high power and channel density in a compact 1 RU enclosure for space savings while maintaining high efficiency and low idle power. They are capable of high peak voltage output and using power sharing they can deliver up to 75% of the total amplifier power on any single channel. They also offer the option of either Lo-Z

or Hi-Z per channel to support hybrid systems—including the ability to manage redundant media interfaces such as AVB, Dante, and AES67. The Voltera D series is ideal for a wide variety of applications, from houses of worship to transportation and government buildings, to entertainment and sports venues.

SHARP/NEC PRE-ANNOUNCED SHARP P601Q AND SHARP P721Q 4K UHD PROJECTORS AT ISE 2024

Sharp NEC Display Solutions Europe offered visitors of Integrated Systems Europe 2024 (ISE) an exclusive preview of the latest advances in projection technology. On show was the new Sharpbranded P721Q 4K UHD projector, part of a completely new projection family consisting of two new models, the Sharp P601Q and Sharp P721Q. Leveraging DLP technology and a brightness of up to 6000 ANSI lumen and 7200 ANSI lumen, the two projectors redefine visual experiences, making them the ideal solution for meeting rooms, museums, and higher education environments.

The new Sharp-branded projectors with crisp 4K UHD image resolution deliver exceptional image quality, perfect clarity, and detailed information. Requiring zero maintenance over a long 20,000 hour lifespan, the completely sealed optical

engine and laser light source means filter and lamp replacement is obsolete. Additionally, users can achieve the finest image alignment through motorized zoom and focus capabilities, complemented by a fully motorized lens shift for precision and clarity. The versatile projection characteristics make it easy to position



The two new projectors from Sharp features crisp 4K UHD image resolution, 20,000 hour lifespan which requires zero maintenance

the projectors, simplifying installations and potentially reducing setup costs. With Risk Group 2 compliance, the new models eliminate the need for prescribed safety precautions, ensuring a safe and worry-free operating environment.

"We are proud to introduce two new Sharp-branded 4K UHD projector models to the market. With outstanding picture quality and pixel-free resolution you will get the best large surface detail-rich information experience. Thanks to its filter-free design, its laser light source, as well as its sealed and dust-protected optical laser engine, users benefit from a worry- and maintenance-free projection over the projector lifespan of up to 20,000 hours", said Alistair Round, Product Manager Commercial Displays and Business Projectors at Sharp NEC Display Solutions Europe.

Guest Column



n the ever-evolving landscape of visual communication, there is one technology that has been making waves in recent years - the dynamic **Outdoor LED Displays**. These vibrant, luminous screens are increasingly becoming a ubiquitous part of the urban landscapes, adorning the facades of stadiums, shopping centres, and transportation hubs. They are transforming the way businesses advertise and communicate, capturing the attention of passers-by with their bright, colourful displays and dynamic content.

The rapid expansion of dynamic outdoor LED displays is driven by a confluence of technological advancements, changing consumer behaviour, and an increasing demand for innovative advertising solutions. The technological advancements have played a crucial role in the proliferation of outdoor LED displays. The advent of high-resolution LED technology has made it possible to deliver crystal clear images and videos, even in broad daylight. Moreover, these displays are robust, capable of withstanding harsh weather conditions, and require minimal maintenance, making them a cost-effective solution for outdoor advertising.

In today's fast-paced digital age, the rise of dynamic outdoor LED displays is being

Illuminating the Future: The Rapid Expansion of Dynamic Outdoor LED Displays

By Pankaj Bellad, Business Head, LOGIC

fuelled by a shift in consumer behaviour and the drive towards digitization. With consumers constantly on the move and having shorter attention spans, traditional advertising mediums like billboards and print ads often struggle to captivate them. However, the bright lights and moving images of dynamic LED displays can instantly seize attention, making them an effective and powerful medium for reaching out to today's tech-savvy consumers.

As the digital revolution continues, consumer expectations from advertising mediums have evolved. They are no longer content with being passive recipients of advertising messages; they crave immersive and engaging experiences. Dynamic outdoor LED displays meet this demand head-on, offering real-time, customizable interactive content that delivers a more personalized and impactful advertising experience.

The versatility of these dynamic outdoor LED displays is another key driver of their increasing popularity. Capable of displaying a wide array of content, from real-time news updates and advertising to live sports broadcasts and public announcements, these screens cater to diverse audience needs. Their potential for interactivity further

The future of dynamic outdoor LED displays looks bright, with emerging trends such as 5G connectivity, artificial intelligence, and augmented reality poised to further enhance their capabilities.

enhances their appeal, transforming passive viewers into active participants and creating engaging, immersive experiences.

The impact of dynamic outdoor LED displays extends beyond the realm of advertising. These displays are also transforming the way we interact with our surroundings. They have the potential to turn our urban landscapes into digital canvases where art, information, and advertising coexist. This fusion of technology and creativity is paving the way for a new era of digital placemaking. Bus stops, train stations, and airports around the world are leveraging these screens to provide real-time updates, route information, and emergency alerts, enhancing passenger experience and safety.

Moreover, the sports and entertainment industry has embraced outdoor LED displays with open arms. Stadiums and concert venues are installing massive, high-definition screens to enhance live viewing experiences, while theme parks are using them to create immersive, themed environments. Businesses are constantly looking for new ways to engage with their customers and stand out from the competition.

The future of dynamic outdoor LED displays looks bright, with emerging trends such as 5G connectivity, artificial intelligence, and augmented reality poised to further enhance their capabilities. As it continues to innovate and push the boundaries of what's possible, it remains dedicated to empowering customers with the most advanced, reliable, and sustainable AV solutions.

In conclusion, the rapid expansion of dynamic outdoor LED displays is a testament to their effectiveness as a powerful advertising medium. As technology continues to evolve and consumer behaviour changes, we believe that these vibrant, dynamic screens will continue to illuminate our urban landscapes, transforming the way businesses communicate and engage with their customers.

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HAVI DESIGN Spectrum: IIM Ahmedabad's Seamless AV Integration

AV-ICN Expo Magazine got in touch with **Ankit Gupta**, Partner at **HAVI DESIGN India LLP**, who along with his team elucidated on the process of transforming IIM Ahmedabad's new Academic Block building with cutting-edge AV solutions. This feature reports on the fine points and intricacies that the team worked on to deliver the exceptional AV systems at the facility.

AVI DESIGN India LLP deployed state-of-the-art AV solutions at the new Academic Block building and Forum Tower of IIM Ahmedabad, one of the top Institutes in India, with 8 classrooms of 120–150-seater capacity, an auditorium of 180-seater, four Seminar Rooms of 50-seater capacity, 21 Syndicate Rooms of up to 8-12-seater space, and a Forum Tower, designed like an open hall with conference rooms.

The Brief

Revealing the challenges faced by the team during the deployment at the institute and as briefed by the client, **Ankit Gupta** stated, "It was a BOQ based tender where a pre-determined BOQ was given in the RFP. Site visit was done by our team but since the building was being constructed and was under execution, we had to work on the provided drawings. Equipment locations and type of equipment were already pre-determined by the client, and they appointed consultant and architects. POC (Proof of Concept) of the

equipment being installed were also conducted by OEMs for the client to experience before finalising the BOQ and tender." He added, "Our scope as AVSI was to meticulously integrate and execute the AV design proposed at the site."

In a meeting with the client and consultant post award of works, the client wanted high speech indelibility through the sound system being deployed for classrooms/seminar halls/auditorium and Forum Tower conference hall considering large halls with little acoustics, as claimed by the HAVI DESIGN team. The brief also included maintaining very high standards of quality in the works considering the building as India's Top Management Institute. They required a seamlessly integrated complete audio and video system with easy to operate interface for professors. Intense coordination, review meetings and weekly reports were submitted for smooth and easy transition of work along with coordination with all vendors working at site and maintaining a cordial relationship with all the teams.

Not only that, the client had some new requirements and wanted



HAVI DESIGN LLP advances IIMA's venue with complete cutting-edge AV solutions for seamless meeting experiences

green board for Lecturer and projector screens for students on the same wall in all classrooms and seminar rooms. Reflecting on the execution, Nitin Gupta, Partner at HAVI DESIGN, said, "We were facing issues with existing height of the front wall. Speaker placement in Seminar Room and the Actual Proposed Speaker location was near the Green Board and thus, was creating issues with the Lapel mic when a lecturer wrote on green board." He further added, "This was not in the plan initially but to resolve the issues we had to increase the height of the projection screens and make sure that there is proper line of sight for students sitting at the back as well in the front rows. We also had to shift the speaker location to some distance from green board, which was done along with the help of civil team and had to redo the cabling as there were space constraints due to doors at both sides of the seminar room and classroom."

The Design

The facility covering eight classrooms with a capacity of 120-150 seater is equipped with Bose Powered Column Line Array (MSA 12EX) and Wall Mount Speakers - (FS4SE), Christie (DWU500S), BenQ Ultra Short Throw

Furthermore, the AV system in the auditorium with 180-seating capacity is equipped with Bose Powered Column Line Array Speakers (MSA 12EX), Christie (DWU500S) Ultra Short Throw Projectors, Kramer switching (VS-88H2A) and backend System, Sennheiser Digital Microphones, and Xillica Digital.

The AV system in four seminar rooms of 50-seating capacity consists of Bose Professional Column Line Array Speakers, Christie Ultra Short Throw Projectors, Kramer AV switching and backend System, Sennheiser Digital Microphones, Xillica Digital Signal processors and ALR Tab tensioned Fixed Screens, and Lumens Auto Tracking cameras.

There's more. The AV system in 21 syndicate/meeting rooms of 8-12 seating capacity includes LOGIC AV Products Cable Cubby along with accessories and displays.

Projectors, Kramer AV switching (VS-88H2A) and backend system, Sennheiser Digital Microphones (E-600), Xillica Digital Signal processors (QR-1 Frame) and ALR Tab tensioned Fixed Screens, Lumens Auto Tracking cameras (VC-A50P).

IIMA's classrooms are equipped with the best of audio and visual technologies to advance education system

For the Forum Tower – Conference Room cum Open Hall, the team installed Bose Column Line Array Speakers, Christie Ultra Short Throw Projectors, Kramer AV switching and backend System, Sennheiser Digital Microphones, Xillica Digital Signal processors and ALR Tab tensioned Fixed Screens, Lumens Taiwan Auto Tracking cameras, and Bosch Wireless Conference System.

The Result

Rejoicing in the accomplishment of the IIMA integration, Gupta remarked, "We were able to exceed the expectations in terms of work quality, timely execution, and integration as per client requirements be it VC calls, lecture recording, live streaming, or excellent speech intelligibility in all spaces. We are obliged to be associated with IIM Ahmedabad as the top management institute not just in India but also highly recognised worldwide."

Inventory Used at IIM Ahmedabad's building:

- Bose Panaray MA12-EX 10 units
- Bose Panaray MSA 12X 18 units
- Bose MB 210 02 units
- Bose S1 Pro 02 units
- Bose DesignMax DM5C 07 units
- Bose FreeSpace FS4SE 32 units
- Bose PS604D 14 units
- PowerSpace P21000A 01 unit
- Xilica FR1-D-Frame + #5 Nos. XC-SML+ #3 Nos. XC-SLO + XC-SUB + SL-AEC
- Soundlmapct Si Impact 01 unit
- Sennheiser SL TS 133 GN Set DW 02
- Sennheiser SL HANDHELD SET DW-4-EUR-56 units
- Sennheiser SL LAVALIER SET DW-4-EUR - 28 units
- Sennheiser MEG 14-40 B + MAT133S 12 units
- Sennheiser E 835 S 04 units
- Sennheiser E 604 02 units
- Bosch DCNM-WD + DCNM-HDMIC + DCNM-WLIION - 25 units
- Chrsitie DWU500-S 30 units
- Beng LH890UST 16 units
- Liberty Grandview Flat 110"/Prima fixed frame screen 110" - 16 units
- Liberty Motorized A LR Screen 110"/ Prima Motorized ALR Screen 110" -
- Samsung QM85R/ Panasonic LH-86QM3VS - 2 units
- Lumens VC-TR1 13 units
- Lumens VC-A50P 1 unit

ELEVATING EDUCATION WITH SMART **CLASSROOMS**

A Conference Session by Kairav Adhvaryu, Product Manager & Tech Head, Nanta Tech Private Limited on 'Education - Smart Class'

In this conference session, held during the PALM + AV-ICN Expo 2023, Kairav Adhvaryu, Product Manager & Tech Head, Nanta Tech Private Limited, discusses the concept of smart classrooms, its benefits, components, and what trends are emerging in the smart classrooms. The session further explores how smart classes facilitate virtual, interactive, and immersive teaching experiences in the classrooms with the help of innovative technology solutions, which will revolutionize the future of education.

'airav Adhvaryu, Product Manager & Tech Head, Nanta Tech Private Limited - a company covering some of the main technological segments like Audio Visual Solutions, Cyber Security, Robotics solutions, IT networking, and infrastructure solutions, thoughtfully builds curiosity in the audience's minds about smart technologies that are allowing students to learn and engage more effectively. He starts the session by

stating, "Smart classrooms help engage with the students more effectively, provide better teaching experiences, help in sharing and collaborating easily, record lectures for future references, allow self-paced learning, and so much more."

But are smart classrooms limited to the education industry only?

With the thought to make the audience

understand the limitations of smart classrooms, Kairav explains, "Smart classrooms are not only limited to the education segment. They can be used in multiple fields like the medical industry for live streaming of the OT room operations including a two-way communication for the doctors. Furthermore, smart classrooms also help improve the quality of education by recording highquality videos with complete information.



Kairav Adhvaryu, Product Manager & Tech Head, Nanta Tech Private Limited shares a brief on the need for smart classroom environments for advanced learning experiences

This can also be used in corporate rooms and many other segments."

AV Components in the smart classrooms

Taking the interaction further, Kairav states, "To make learning more interactive and engaging, smart classrooms include

components like interactive whiteboards, projectors, document cameras, smart podiums, collaborative devices, videoconferencing equipment, microphones, amplifiers, speakers, control system to control every component using Tab. By using all these applications, we offer our students a hands-on learning experience, which goes

beyond traditional activities within the smart classrooms."

Smart classroom references

Kairav presents some images of smart classrooms where the audience gets to see the location of boundary microphones in the setup and how to use those. He shares, "There's a preview display for the lecturer so that the lecturer can view in front whatever they are presenting on back of them. Furthermore, there are smart podiums that consist of in-built windows systems, interactive monitor microphones, and a document scanner through which users can share or perform multiple functions. For the live streaming applications, we focus on cameras that record everything in the classroom. These cameras come with multiple functions, for instance, a speaker tracking function. So, whenever a speaker is speaking, it can directly focus on that section of the room. To record what a lecturer is speaking, there's also a camera installed in the front, which tracks the lecturer & its movement." He adds, "Interactive Flat Panels are the most commonly used components in smart classrooms. Earlier there were projectors, that were used, however, nowadays, we need

OPTOCORE

SMART FIBER SOLUTIONS FOR LIVE EVENTS AND INSTALLED AV
NO MORE BULKY SNAKE CABLES... AND NO MORE LIMIT TO SOUND MIX CREATIVITY



collaboration devices. Interactive flat panels have 30,000 - 50,000 hours of operating life. So, if you run the equipment 8 hours a day, the lifespan goes above 10 years. It has 4k resolution with Android/Windows system built-in and provides the users with more collaborative outcomes. In terms of collaboration, you can wirelessly share any content using a smartphone, tablet, laptop, or any device."

During the conference session, Kairav also shared some technical briefs including concepts like wireless collaboration and wired medium in smart classrooms. He stated, "There are some simple boxes made by the brands like Kramer Via or Crestron AirMedia. Such devices help in wirelessly sharing the content on the screen and chat or collaborate in the same media of the classroom. Furthermore, there are two technologies that are generally used for extended ranges. First one is SDVoE – generally means AV-over-IP that stands for Software Defined Video over Ethernet. And the second is HDBaseT Technology, which has a limitation to go up to 150 m only. Initially, we had this topology where we simply connected our projectors to the laptops – that was our smart classrooms. However, there was a limitation in this concept too that the HDMI cable could only go up to 10 m or 15 m. To eliminate this limitation, HDBaseT Technology was used. HDBaseT's features include – 4k video with high quality audio, simplified cabling, longdistance transmission, flexible control, and anti-jamming design."

Learning different components of smart classrooms

New types of technologies are emerging such as ceiling microphones, which do not require users to have wired connectivity. Kairav expresses, "We faced one such situation when we were designing a project where female lecturers faced concerns about pinning microphone receivers on their sarees or dresses. Therefore, ceiling microphones are helpful as there are no such issues. Furthermore, ceiling microphones also create a beam. Let's say, there's a noise coming from one side; ceiling microphones create a beam to capture that voice, creating an immersive listening experience for the students or audience. These devices also have a good covering range. An area of up to 10 m x 10 m can be easily covered by a single ceiling microphone." Kairav further, shares a reference video by Sennheiser that clarifies the use of ceiling microphones with very basic concepts of how the applications of ceiling



The session informs the audience about ceiling microphones with a perfect video by Sennheiser that clarifies the use of ceiling microphones in training rooms

microphones can be used in the training rooms environment.

Adding to the audience's technical knowledge, Kairav explains the use of smart podiums and video conferencing technologies. He shares, "Smart podiums can be used as collaborative tools also because they have every essential feature like a touch interactive display where you can write, or annotate on it, microphone systems, in-built or integrated speakers, wirelessly share content, and portable. For an institute that doesn't has regular sessions, single smart podiums work and can easily be transported to a different room." To share a brief idea of how smart podiums work, Kairav plays a video by Maxhub that elucidates on the functioning, features, and latest advancement of smart podiums. He later adds to the interaction, "Most of the smart classrooms have been converted into hybrid classrooms where some student members are sitting within the room and some maybe outside and that's where lecturers convey their messages through video conferencing. It helps connect with experts around the world, welcome guest speakers in the classroom environments, and collaborate with students from different institutes. Moreover, Speaker Tracking Cameras are set to directly focus on the speakers without manually adjusting the settings like the presets. Nowadays, cameras are also coming with the picture-in-picture (PIP) mode that don't require any third-party switchers or controllers for this application."

New & upcoming technologies in smart classrooms

Kairav continues the session providing essential details about upcoming technolo-

gies in the education sector. He also presents relevant examples like the Hologram used in 2014 elections to clarify the concept of holograms for different applications in India.

Hologram in Education – Hologram technologies have the potential to revolutionize how the world learns. Students can view the concept and visualize what's taught to them in the classrooms. The technology provides a feeling like the lecturer is standing in the same room while giving the presentation. Nowadays, holograms are becoming more popular but due to many technicalities involved with it, the technology is taking time to enter the education segment.

Robots in Education – Using a robot can be helpful in smart classroom applications because it has in-built Al assistance like Alexa or Google along with the in-built speaker and microphone systems that help with video calls. While explaining Al robots' functioning within the classrooms, Kairav shares the specifications of the Al robot in detail. He remarks, "It can be used for multiple functions like facial recognition, taking attendance of the students, helping guest lectures take the classes, and more. Currently, the Temis (Al robots) are installed in airports like the Kuchi Airport and Bangalore airport to be used as a way-finder application."

Kairav shared multiple videos and presentations by the end of the conference for reference on the innovative technologies that are catering to the educational segment and are set to advance the way students learn.

To watch full conference from **AV-ICN Expo**, visit our Youtube channel.

ATEN ANNOUNCES TECHNICAL PARTNERSHIP WITH NETGEAR

ATEN International, the parent company of ATEN Technology, Inc., one of the leading providers of KVM and AV/IT connectivity and management solutions, announced its strategic partnership with NETGEAR, the leading provider of award-winning networking products designed to simplify and improve people's lives. The partnership originated in the

while keeping pace with rapidly evolving technological trends.

Nicholas Lin, Senior Vice President of ATEN, stated, "ATEN is extremely excited about our technical partnership with NETGEAR. This collaboration not only offers superior distributed AV solutions for our clients but also accelerates the application of IP-based technologies. Our

broad portfolio of audio and video over IP products, ATEN benefits from NETGEAR's network design knowledge. Both companies want to make AV-over-IP easy to deploy for their worldwide integrators."

The technical collaboration between

ATEN and NETGEAR will redefine the standards in the distributed AV domain. offering clients superior product solutions and services. This partnership aims to play a pivotal role in the practical implementation of digital transformation. The collaboration will continue to expand from the Taiwanese market to the global stage, striving to bring more innovations to the entire industry to meet the constantly changing technological needs. The objective of this partnership is to push the limitless possibilities of AV technology, offering flexible, efficient, and more stable solutions, and ensuring that clients are well-prepared to meet the myriad digital challenges of the future.



NETGEAR®

Taiwan market, with a collaboration through NETGEAR's Taiwan distributor, NETBRIDGE Technology. Together, they aim to lead in the realm of AV over IP infrastructure, with plans to soon expand from the Taiwanese market to a global outreach. This technical collaboration promises stable, high-performance solutions for a range of applications, including digital signage and audiovisual extensions in control rooms, all

integrated solutions offer unparalleled compatibility and stability, and with our joint global service networks, clients can enjoy local technical support from both ATEN and NETGEAR. We anticipate that this technical alliance will bring unexpected delights to our customers."

Richard Jonker, Vice President of Commercial Business Development, said, "NETGEAR AV is excited to strengthen the partnership with ATEN. With the

B-TECH AV MOUNTS INTRODUCES ITS NEW LOOK

Maintaining a strong, recognisable identity has been pivotal in **B-Tech AV Mounts'** global growth, until now only two different B-Tech logos have been used since the company was formed in 1972.

Since the introduction of previous logo, every aspect of B-Tech's operation and the position in the market has evolved, and with the enduring strength of the current brand, the new logo symbolises the modern, progressive version of B-Tech AV Mounts - a forward-thinking innovator in a highly technical industry.

Attributes of the new logomark reflect the qualities that are expected of B-Tech products: strength, quality, precision, simplicity, and reliability. Products carrying this mark - either the full version or just the "B" logomark alone - come with all the reassurances expected of a design

manufacturer with more than 50 years of experience, who are holistically dedicated to professional AV mounting.

The B logomark is formed of three components: upper and lower bowls and a vertical stem. Vertical lines placed in this stem give it an aesthetic that matches the aluminium profile of the quintessential B-Tech product range – the market leading "System X". This is complimented by a three-colour palette featuring the rec-



ognisable "deep blue" colour and newly introduced accent colours of mid-blue and cvan

Whilst the brand has evolved, core values remain and the three-shape, three-colour design represents the three overarching pillars of these values: a commitment to designing and manufacturing the highest quality products, unrivalled technical assistance, and focused, dedicated sales support. These three colours blend harmoniously in the logo, symbolising these values working together equally and seamlessly.

As B-Tech AV Mounts continues to grow, the commitment to these values remains at the highest level and the B-Tech name and brand remains one of the first names that AV professionals think about when needing mounting systems.

To feature Product Launch News, Industry News, or AV Installation News contact:
Ritika Pandey | Email: ritika.pandey@hyve.group

NUREVA JOINS Q-SYS TECHNOLOGY PARTNER PROGRAM

Nureva Inc., one of the innovators of advanced audio-conferencing solutions, announced it has joined the Q-SYS Technology Partner Program. The program enables technology companies to create market-ready solutions that integrate seamlessly with Q-SYS, a cloud-manageable audio, video, and control platform. Nureva has developed a Q-SYS-certified plugin for its HDL310 and HDL410 audio conferencing systems (the HDL pro

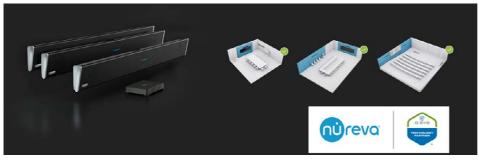
series) to deliver audio control that will enhance and simplify the remote experience

The Q-SYS plugin enables customers to adjust the HDL pro series systems from the Q-SYS audio, video, and control platform. They can recalibrate the microphone system and adjust the speaker volume, microphone mute and EQ. The HDL pro series systems' sound location data is also included in the plugin and

can be used to automate Q-SYS cameras without additional programming. The microphone status can also be monitored inside the plugin and connected to a monitoring proxy to enable monitoring and management with Q-SYS Reflect Enterprise Manager.

"We are proud to have Nureva join our program and work collaboratively with us on a plugin integration that will enable elevated experiences across our shared customers," said **Geno Zaharie**, Principal, Alliances & Ecosystem at Q-SYS.

"We are delighted to be a member of the Q-SYS Technology Partner Program with a Q-SYS-certified plugin that integrates with the audio systems in our HDL pro series," said **Nancy Knowlton**, Nureva's CEO. "This will open the door to broader deployments by our mutual customers to deliver the enhanced audio and video experience essential for effective collaboration."



Nureva HDL pro series systems now integrate with Q-SYS to greatly simplify audio control and camera tracking in larger hybrid spaces

AET'S ENVISION BRILLIANCE CONNECTS PARTNERS IN LUCKNOW WITH AT55 & OCOB

AET, one of the leading international LED display manufacturers, hosted a partner event named 'Envision Brilliance' at the Fortune Park BBD in Lucknow on January 27th, 2024. The event, guided by the tagline "Innovate today, Visualise tomorrow, Inspire always," served as a platform to showcase AET's latest advancements in LED display technology and foster meaningful connections with its partners.

Notably, AET, the LED Display manufacturer is not stopping here. The international LED Display manufacturer is going to organise Roadshows in different major cities across India, including - Delhi, Mumbai, Bangalore, Chennai, and so on.

Speaking of the Envision Brilliance, the evening commenced with a presentation that shed light on AET's rich heritage, ambitious agenda, and unwavering commitment to cutting-edge technologies as well as after sales support. Attendees were given a glimpse into the intricate world of Modern LED display packaging and R&D technologies, gaining valuable



AET Team with the partners at 'Envision Brilliance', which was organised on 27th Jan 2024 in Fortune Park BBD, Lucknow

insights into AET's relentless pursuit of innovation.

Beyond technical prowess, the event prioritised fostering connections and collaboration. Introductions of AET's team leaders instilled a sense of trust and camaraderie, while a delectable spread of dinner and cocktails provided the perfect backdrop for meaningful interactions.

The feedback forms given to attendees showcased their feedback and opinions as a way to build trust between the company and the partners. However, the true stars of the evening were undoubtedly AET's latest innovations: the AT55 and the NXCOB.

The AT55: Redefining Fine-Pitch LED Displays

Available in pixel pitch of P1.26, the AT55 represents a marvel of miniaturisation, redefining the possibilities of fine-pitch LED displays. With its ultra-high

Continued on pg 43

AET'S ENVISION BRILLIANCE CONNECTS PARTNERS...

Continued from page 42

pixel density and seamless integration capabilities, it promises to transform close-up viewing experiences. AT55 is perfect for applications such as indoor environments, broadcast & media industry, B2B, airports/transportation, control & surveillance center, government, as well as healthcare & hospitals.

The NXCOB: Pushing the Boundaries of Brightness & Efficiency

Available in the pixel pitches of P0.9,

P0.78, P1.5 & P1.25, the NXCOB, on the other hand, pushes the boundaries of brightness and efficiency. The technology used in this product delivers unparalleled visual performance, making it ideal for large-scale outdoor applications alongside broadcast & media industry, retail/commercial, B2B, airports/transportation, control & surveillance center, education sector, healthcare & hospitals government authorities. The product is available in Cathode as well as Anode.

AET's 'Envision Brilliance' event in Lucknow was more than just a product showcase; it was a glimpse into the future of LED display technology. By blending innovation with human connection, AET successfully illuminated the path towards a brighter, more visually stunning tomorrow. With the AT55 and NXCOB leading the charge, the company is poised to redefine the landscape of LED displays, one pixel at a time.

ETC ASIA PROMOTES ALVA WONG TO GENERAL MANAGER, ASIA

ETC Asia announced the promotion of **Alva Wong** to the position of General Manager of the company. Wong is a seasoned engineer with more than 20 years of working experience in the lighting industry. He graduated from the University of Leeds in the UK with a Bachelor of Engineering (Electronics and Electrical). He joined ETC Asia in 1999 as an electronic engineer, having previously worked at Strand Lighting for several years.

With the successful development of ETC Asia, Wong gradually took on more senior positions in the company. In 2012, Wong began serving as Project Department Manager, and later in 2015 and 2017, the Customer Service and Price and Quotation departments were added to the existing structure of the Project Department.

Wong has successfully supported sev-



Alva Wong, General Manager, ETC Asia

eral key projects, including Marina Bay Sands Hotel in Singapore and the West Kowloon Cultural District - Xiqu Centre. His expertise and leadership played a vital role in the success of these projects.

Durrell Ramer, Vice President of International Operations at ETC, said, "We are very pleased to announce that Alva Wong will serve as the new general manager of ETC Asia. It has been a pleasure to work with Alva over the years. Alva has successfully led many of the world's largest entertainment lighting projects. He brings years of expertise and positive attitude to provide excellent guidance to our clients and ETC employees."

In his new role as General Manager, Wong will be responsible for overseeing ETC Asia's operations and driving the company's continued success. This promotion is a testament to his hard work, dedication, and outstanding leadership. ETC Asia looks forward to his continued contributions in the future.

XILICA & AVER PARTNERS FOR VOICE-BASED CAMERA TRACKING

Xilica, a provider of collaboration products and AVer Information Inc., a provider of education technology and Pro AV solutions, have announced a technology partnership to support the growing demand for voice-based Pan-Tilt-Zoom (PTZ) camera tracking functionality in medium and large collaboration spaces, such as conference rooms, multi-purpose rooms, auditoria and classrooms.

The manufacturers have integrated control and monitoring of AVer's VISCA-



based PTZ camera range into Xilica's room audio systems, offering a dragand-drop, codeless experience for system integrators wishing to utilize AVer's Pro AV cameras for voice-based camera tracking. "We're pleased to be able to offer our partners the ability to deploy AVer's

high-quality Pro AV cameras natively within our systems," said **Shaun Robinson**, VP Product, Xilica. "By combining Xilica's easy-to-install room audio solutions with AVer's broad range of camera products, we can offer our joint customers a comprehensive solution for any size of space."

"Xilica's simple-to-deploy voice-based camera tracking is a great option to enhance engagement in conferencing, training, and learning spaces," commented **Stanley Cheng**, Vice President, AVer.

NEWLINE INDIA PARTNERS WITH TRUSTECH AV SOLUTIONS TO ENHANCE LOGISTICS AND DISTRIBUTION NETWORK

Newline, one of the renowned market leaders in Interactive Displays, announced a strategic collaboration with Trustech AV Solutions, positioning Trustech as the exclusive logistics partner for Newline products in India. This partnership aims to streamline the importing and distribution processes of Newline products throughout India, ensuring efficient access to cutting-edge AV solutions for

customers across the country.

Newline India's commitment to delivering innovative Interactive Displays and Trustech AV Solutions' expertise in logistics and distribution come together to create a synergy that will revolutionize the AV technology landscape in India. Trustech will oversee the importing and distribution of Newline products through authorized regional distributors, ensuring

seamless availability and timely delivery to customers nationwide.

Commenting on this collaboration, **Karthik Narayanan**, Managing Director, Newline India, Middle East, and Africa, expressed his excitement, stating, "We are thrilled to join forces with Trustech AV Solutions to enhance our logistics and distribution network in India. This partnership reflects our dedication to providing customers with exceptional AV solutions while ensuring a smooth and efficient supply chain."

Hardik Shah, Director, Trustech AV Solutions, also shared his insights, "Trustech is proud to be chosen as the exclusive logistics partner for Newline products in India. Our extensive experience in logistics and distribution, coupled with Newline's innovative AV solutions, will enable us to deliver unparalleled value to customers across the country."

With this collaboration, Newline India and Trustech AV Solutions aim to elevate the IFPD technology landscape in India, empowering businesses, educators, and organizations with state-of-the-art Interactive Displays and comprehensive AV solutions.



L-R: Karthik Narayanan, Managing Director, Newline India, Middle East, and Africa; Hardik Shah, Director, Trustech AV Solutions; Bhavesh Rabadiya, Director, Trustech AV Solutions

LIGHTWARE UNVEILS NEW BRAND IDENTITY TO MARK 25 YEARS OF AV INNOVATION

Lightware announced a significant update to its corporate identity reflecting its evolution over the past 25 years.

Lightware's decision to revise its branding and logo was made to better align the company's visual persona with its status as an innovator in the technology sector. The new design retains a connection to Lightware's past while introducing a more modern and streamlined look. This includes an updated colour scheme and a new slogan that highlights Lightware's key values: innovation, reliability, and its European origin.

Lightware's history is marked by its role in pioneering solutions within the AV industry. The company has been responsible for notable developments such as



the EDID manager, Hybrid Matrix switchers, transmitters and receivers, and LARA, a USB-C based collaboration solution with the award-winning Taurus UCX. This track record of innovation is set to continue, with Lightware actively adapting to meet emerging market needs in both hardware and software.

Starting as a small Hungarian company, Lightware has grown to become one of the leading European AV manufacturers. While its operations have expanded globally, the company's development and manufacturing processes remain centered in Budapest, underlined by the 'Made in Europe' aspect of its new brand identity.

"This rebranding strategy, coupled with the launch of our revolutionary products in 2024, reflects our evolution and ongoing commitment to excellence in the AV industry," commented **Gergely Vida**, CEO of **Lightware Visual Engineering**. "Our new identity respects our rich history while boldly stating our readiness to face future challenges and opportunities. With some of these cutting-edge innovations set to be unveiled at ISE in Barcelona, this is an exciting time for Lightware, and we are confident these developments will strongly resonate with our customers and partners around the globe."

AV INSTALLATIONS: GLIMPSES



Play Technologies Transforms AV Experiences at Al Jamea

Play Technologies delivers state-of-the-art facility at Aljamea Tus Saifiyah, a worldclass Arabic academy with an auditorium of 650 seats and 16.6m W X 24.6m L under balcony and 16.6m W X 9.9m L balcony. The exceptional facility is meticulously designed to deliver a top-tier audiovisual experience, incorporating cutting-edge technology for an unparalleled performance. With a combination of QSC, Shure, K-Array, Lightware, Blackmagic, Crestron, and AOTO equipment, this auditorium sets a new standard in AV excellence.

The final commissioning was done well in advance and a successful dress rehearsal was also carried out a day before the final showcase, which made it easy for the team to avoid any uncertain challenges at the inauguration. The auditorium was inaugurated by the 53rd al-Dāī al-Mutlag Dr. Syedna Mufaddal Saifuddin, and by Prime Minister of India, Shri Narendra Modi in presence of the Chief Minister of Maharashtra, Eknath Shinde, and Deputy Chief Minister of Maharashtra, Devendra Fadnavis.



Udaipur City Palace Comes Alive with Splat Studio & Dataton

The **G20 Sherpa Meet** in Udaipur, India witnessed a congregation of world leaders,

who partook in key conversations on sustainable lifestyle, technological transforma-



Sennheiser's TeamConnect Ceiling2 Revolutionizes Hybrid Learning at KIIT Bhubaneswar

Kalinga Institute of Industrial Technology (KIIT), one of the renowned and highly soughtafter educational institutions in Bhubaneswar, India, selected Sennheiser's TeamConnect Ceiling 2 microphones to enhance the learning experience across its campuses.

KIIT sought a seamless, touchless solution that can mitigate hygiene risks and can serve both on-site and remote students. Working closely with Sustainable Outreach and University Leadership Limited (SOUL), the project's Principal Integrator, KIIT found its solution in Sennheiser's TeamConnect Ceiling 2 (TCC 2). The university deployed 150 units of TCC 2, ushering in a flexible, hybrid learning experience that met their unique needs.

The requirements seem straightforward, but the installation had its own set of challenges. Across 150 rooms in the university, each room required specific audio adjustments and settings due to the seating arrangement and layout of each room. The Sennheiser team and the team of engineers from SOUL played a pivotal role in ensuring the success of this project. They carried out a seamless and hassle-free installation within the stipulated timeframe and delivered an outcome that KIIT was satisfied with.

tions, and more. **Splat Studio**, a multidisciplinary design studio, took to hand the task of beautifying the historical walls of the **Udaipur City Palace** with 3D projection mapping using Dataton's watchout software.

The team at Splat Studio was tasked with creating a short but mesmerizing opening sequence for the G20 Sherpa Meet, highlighting Rajasthan's culture and heritage, underlined with futuristic innovations that are helping the state move forward with a fusion of

tradition and technology.

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



HAVI DESIGN INDIA LLP Creates Immersive Experiences in New Delhi

OP Jindal University or **Jindal** Global University (JGU), a number one ranked private university in India in the QS World University Rankings 2023, based in Sonipat, Haryana, strived for quality education with the motive to have a world-class design facility for esteemed guests from various walks of life. The Experience Center of Jindal Global University at Taj Palace in New Delhi can accommodate up to 72 people and is equipped with state-of-the-art audiovisual and control system technologies. The space was created to truly reflect the quality and commitment of JGU towards their passion for quality education.

The audio system is a 5.2 setup with three **Bose** single 8-inch front-of-house speakers, single 5 inch – two left and right surround speakers, and three rear

surround speakers, along with two Dual 10-inch subwoofers.

The video system features an active asymmetric Samsung LED video wall with a P1.5-pixel pitch and measuring 28 feet x 5.6 feet, resulting in a total diagonal screen size of 300 inches. It can be configured and programmed to display multiple content simultaneously, which could be possible through TV video wall processor – Split View, Single Center Screen View, Full View, Video Conferencing View, etc. For video conferencing, three Lumens cameras are installed with zoom capabilities of up to 12x and 20x, allowing them to capture both the presenter and participants with auto tracking (in centre camera) system that is also equipped with lecture recording and streaming facility through Lumens LC200.



Christie Griffyn Series Powers Son et Lumière at Sri Krishna Janmabhoomi Temple With Spectacular Visuals

Christie announced that its Griffyn Series RGB pure laser projectors are illuminating the façade of the Sri Krishna Janmabhoomi Temple for a spectacular son et lumière that pays homage to the timeless legends of Lord Krishna.

The nightly 40-minute light and sound show was inaugurated by Agra's Chief Minister, Yogi Adityanath. This mesmerizing presentation was accomplished by eight Christie Griffyn 4K32-RGB pure laser projectors, meticulously installed and commissioned by Modern Stage Service, a renowned systems integrator recognized for numerous projection mapping projects across India. Its portfolio includes prominent landmarks such as the Old Fort in New Delhi and the Sanchi Stupa in

•••••

Madhya Pradesh.

With lumen options ranging from 36,500 to 50,000, the all-inone Griffyn Series is among the smallest, lightest, and brightest RGB pure laser projectors available. Equipped with Christie TruLife+ electronics platform for all-in connectivity and electronic color convergence (ECC) that allows for perfect color alignment, this 3DLP projector series can produce greater than 98% of the Rec.2020 color space, resulting in richer and true-tolife colors. The Griffyn Series also come with integrated Christie Twist for warping and blending, and is compatible with Christie Mystique, automated camerabased alignment software solution that can quickly manage and maintain multi-projection



Integrating Projection and Holography at Sri Guru Tegh Bahadur Holographic Auditorium and International Centre for Sikh Studies

The International Centre for Sikh Studies wanted to create a 45-minute audiovisual show that knits the long history of Sikhism from its inception to today with

the latest projection technology. This full 360° dome projection covers an auditorium that is 18 meters in diameter and 10 meters in height, equipped with 200 seats. The auditorium projection is an immersive viewing experience that aims to create awe-inspiring and emotion-inducing memories. The building construction was completed in 2018, but due to the complex nature of this immersive dome projection, no other brands were willing to take on the AV installation component. This is when **Optoma and MSS World** stepped in and took the opportunity head-on.

5 units of **ZU1050** and 5 units of **ZU750** were chosen and used with A01 Short throw lenses.

Both projector models are the most versatile ones in the industry, with 6 interchangeable lenses to adjust to different installation needs. The models were equipped with MultiColor Laser technology, which defines outstanding balance in accurate color reproduction and exceptional brightness, making no trade-off between brightness and color. ZU1050 and ZU750's 10,000 and 7500 ANSI lumen brightness matched the color temperature and created a bright and immersive projected video and holographic imagery.



11 Questions with Petteri Murto

Vice President of Sales and Marketing for APAC, Sennheiser

Could you describe your journey in the field of business communications? Would you like to share some of the highs and lows?

My journey in business communications has been both exhilarating and challenging, marked by significant changes over the years. One aspect that stands out is the evolution of how customers and end-users utilize the solutions we offer today. For instance, five years ago, entering a corporate meeting room meant connecting laptops to screens using HDMI cables and requesting specific brand connectors.

However, the pandemic has had a profound impact on technology, forcing us to adapt and learn new ways of communication. The landscape has dramatically transformed from the days of plug-and-play solutions in remote meeting rooms. Nowadays, many large corporations expect fully automated systems. As soon as you enter a room, everything begins automatically, much like the futuristic scenarios depicted in movies from 20 years ago. You'll notice the lights are on, the meeting has begun, and the curtains have already been drawn.

Being part of this ongoing development within the business communications industry has been thrilling. I have had the opportunity to witness the rapid advancements in technology and to play an active role in shaping the future of communication.

How would you describe your day-to-day duties and responsibilities as the APAC Vice President of Sales for Business Communication at Sennheiser?

There's never a dull moment in my role. The Asia-Pacific region is incredibly diverse, encompassing countries such as India, Australia, New Zealand, Korea, China, Japan, and Southeast Asian markets. This means there's always something unique happening. My fascination with people, different cultures, and human behaviour makes this role truly enjoyable. As the VP of Sales for the APAC region, I am enthusiastic about the responsibilities I hold. This position keeps me engaged, as every day brings new experiences and challenges.

Can you share a few examples that make your days special at Sennheiser?

The individuals I collaborate with, including partners, customers/users, and the industry itself, are truly unique and special within the world of Pro AV. Upon entering this industry, one will quickly realize and appreciate the passion that people have for the industry, and the excitement they feel for various brands and solutions. At Sennheiser, we don't merely sell products; we provide solutions, we contribute to building people's lives, and we enhance the way they communicate and collaborate.

Can you shed light on the current sales strategies at Sennheiser?

At Sennheiser, our current sales strategy revolves around a focused approach to doing business. We place significant emphasis on business communications while maintaining a strategic focus on segments such as pro audio and Neumann Berlin. Our primary goal is to stay close to our customers, keeping their needs in mind in all our endeavours. I have been working with teams in India and other coun-

As one of the leading industry experts in the field of business communications with over 15 years of global B2B experience, **Petteri Murto** shares his experiences and business strategies at Sennheiser with the AV-ICN team in this 11 Ouestions feature, with insights on Sennheiser's global to local approach. Going down the memory lane from pre-pandemic times until now, Murto shares Sennheiser's focused approach on business communications and the brand's performance on a global scale.

tries to adopt a more customer-centric approach, ensuring that we listen to our clients and stay relevant.

We have also made significant improvements in providing venues where customers can experience our unique solutions firsthand, which is key to the sale of business communication products and decision making. Therefore, we aim to make our experience centres accessible to as many people as possible and strive to be active and present alongside our customers.

In recent years, we have invested heavily in India, partnering with numerous reputable partners for users to explore our products and solutions. For instance, we recently held a roadshow in Bhubaneswar, India, where we showcased our products and solutions to potential customers. The event saw an impressive turnout, and the enthusiasm with which attendees learned about our offerings was truly remarkable.

How has your brand performance been in the last few years? What are your expectations from sales in the coming years?

In recent years, our brand has seen substantial growth and achieved impressive results. We are determined to maintain this momentum. Specifically, in India, we plan to target various tier cities, expand our presence in more regions, and attract new customers. Our focus is on growing our business markets and exploring opportunities within specific segments.

We have meticulously analysed our business units, establishing a clear distinction between pro audio, Neumann, and business communications. This allows everyone on our team to concentrate exclusively on their respective areas. As the saying goes, "Don't change a winning team or a good strategy." We believe we are currently on the right track and want to continue being proactive while staying focused on our actions. Our aim is to achieve even greater success in the future.

What is your perception of India as a business communication market for Sennheiser in the global scheme of things?

We have placed significant emphasis on and invested in the Indian market. Now is the time to adapt, learn, grow, and achieve success here. India is, and will continue to be, one of our key markets within the APAC region.

What strategy are you following from the global to the APAC and local levels, and how is it helping India and other countries to grow? Are there different strategies for different countries?

Currently, our global strategy focuses on specific verticals where we can provide the highest quality solutions, particularly in the education and corporate sectors. In the realm of business communications, we aim to maintain a sharp focus. For example, within the education sector, we concentrate on higher education because we believe our solutions add more value for both endusers and professors. These strategies are formulated at the global level.

However, when implementing these strategies at the APAC level, we adjust them to cater to local needs. Our team members are well-aware of our current focus areas. We always approach each market with a local flavor, which is what makes our brand unique. India, for instance, is characterized by its people and the exceptional individuals we work with who make things happen. This distinctive aspect sets India apart from other markets, making it a truly unique environment for growth.

We have placed significant emphasis on and invested heavily in the Indian pro AV market. Now is the time to adapt, learn, grow, and achieve success in this market. India is, and will continue to be, one of the key pro AV markets within the APAC region in the future.

As a part of the leadership team, what is your vision for the Indian business communication market? Any key changes/ developments that you would like to make for Sennheiser's Indian team?

Some key developments include the appointment of new team members, such as Naveen Sridhara, who has joined Sennheiser as the Director of Sales. We have also shifted our approach towards the pro AV segment, aiming to be one step closer to our end customers in everything we do. As a result, we strive to stay ahead of the competition and support these actions through our marketing efforts.

Additionally, we have been collaborating with other manufacturers in India to establish strong relationships with them. Having our products in multiple locations sends a powerful message from our brand that "to-

gether we are stronger." Consequently, we have carefully selected partners who share our vision. Together, we focus on providing experiences and solutions that make our customers' lives easier.

According to you, what is the recent game-changing moment in the business communications industry?

In my opinion, the recent game-changing moment in the business communications industry is the rise of hybrid work. The rapid pace at which technology and development have occurred has forced even those who had never used technological devices for communication or collaboration to adapt quickly. The way people can navigate these changes today is truly remarkable.

However, another game-changer is the growing importance of audio. This was something that people didn't pay much attention to when they began collaborating a few years ago. Consider a virtual meeting where the audio doesn't work; both the meeting and the time spent become wasted. As a result, we've moved from having virtual meetings to appreciating high-quality videos, but the significance of audio remains crucial.

What is your perspective on the hybrid work trend? Is hybrid work here to stay?

Providing solutions to the dedicated people who work for you is undoubtedly an asset. As the world continues to change, we are witnessing a shift towards more flexible and balanced ways of working. I firmly believe that hybrid work is here to stay because it has fundamentally transformed how we communicate. Although I am a strong advocate for face-to-face human interaction, hybrid work is now an integral aspect of our lives that we cannot ignore.

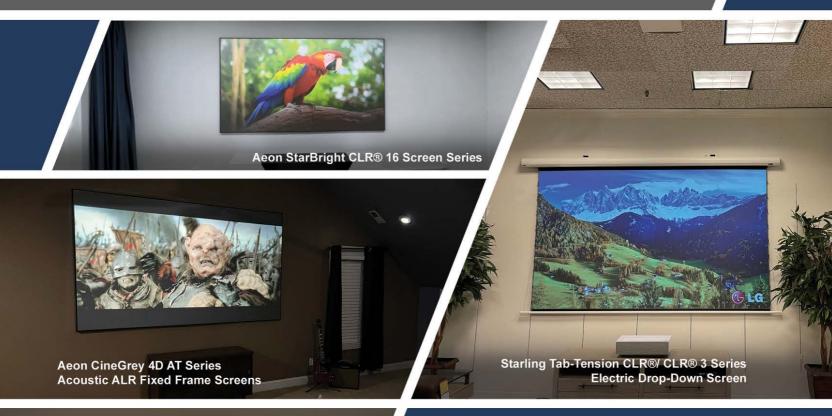
Earning the recognition of 40 Under 40 in APAC, a LinkedIn Top Voice, and a technology sector expert, what key insights would you like to share with our readers about the ever-expanding business communication industry?

My advice is to remain curious. If you maintain your curiosity, you are on the path to success. There are people who 'talk,' and there are people who 'do.' It is better to be on the side of the doers, as they are the ones who achieve results. India has many great doers – individuals who make things happen. I believe this quality can drive the growth of the ever-expanding business communication industry in the future.



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