

AV-ICN EXPO MAGAZINE

AV INTEGRATION COMMUNICATION
NETWORKING

Leading Systems Integrator Pyramid Technologies Crowns **YASHOBHOMI** with 8,800 sqm LED Façade



Expanding the Ever-Evolving Indian Pro AV Market

*In Conversation with Vijay Sharma,
Country Head, Optoma*



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Preview: Advent of Innovative Display Technologies Fulfills **AV-ICN Expo 2024**

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Technology Discussion Feature:

Sound in Visual Design

Top Display Trends in 2023



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- **DESIGNING THE PROCESS TO DELIVER EXCELLENT AV PROJECTS**
- **PRO AV PROJECT MARKET - CHALLENGES AND OPPORTUNITIES**
- **FUTURE OF PRO AV MANAGED SERVICES IN INDIA**
- **AV AND IT CONVERGENCE IS ESSENTIAL: ARE AV CONSULTANTS AND SYSTEMS INTEGRATORS UPTO THE TASK?**
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LUMINA INTRODUCES THE ALL-NEW LEOR BLACK FOR VISUAL BRILLIANCE

Lumina Screens introduced Leor Black, a latest innovation for cinema at homes. Leor Black is designed to redefine the home entertainment experience. The product is manufactured with a distinctive pure black fabric and is designed to absorb ambient light, allowing for deeper and richer blacks. This unique feature is a game-changer in the world of visual displays.

"Leor Black's pure black fabric isn't just a cosmetic choice; it's a fundamental shift in how we experience visual content. By absorbing ambient light, Leor Black minimizes interference, resulting in enhanced contrast. This means the users can enjoy true-to-life visuals with crisp details and a heightened sense of depth," stated **Yusuf Galabhaiwala** - Director of Operations, Lumina Screens.

Leor Black's pure black fabric achieves the sense of clarity by eliminating the intrusion of unwanted light, providing an immersive and captivating visual experience.

Adaptability to Varied Environments

Leor Black isn't confined to a dedicated home theatre space. Its adaptability suits various environments, from cozy living rooms to entertainment hubs. The versatility of Leor Black ensures that, regard-



The all-new Leor Black makes users see visuals in deep blacks and vibrant colors without worrying about ambient light

less of where it's installed, the users can consistently experience the same level of visual excellence.

The Innovation Behind Leor Black

Leor Black harnesses advanced matte ALR features. With a gain of 0.8, it excels in rejecting ambient light by 90%, preserving true color fidelity. Its unique sur-

face ensures rich contrast, portraying deep blacks and pure whites for an immersive viewing experience. The smooth matte finish eliminates glare, enhancing image sharpness. Crafted with precision and innovation, Leor Black sets a new standard for home entertainment screens. Leor Black elevates the viewing experience, making every frame a masterpiece while watching any movie, shows, or gaming.

CHRISTIE DESIGNS CINELIFE+ RBE PROJECTORS TO DELIVER BIG IMPACT

Christie introduced its CineLife+ RBe projectors with Phazer illumination technology. The new projectors combine advanced features and electronics in an economical platform, with 2K resolution and brightness ranging from 6,000 to 11,000 lumens.

The CineLife+ series adds three new projectors: CP2406-RBe, CP2409-RBe, and the CP2411-RBe. With Phazer illumination, these projectors are designed for improved image performance on small, high-gain screens.

Featuring Christie's new CineLife+2K electronics platform, projector set-up is quick and easy with auto-configuration features, motorized lens mount, and integrated proprietary electronic color

convergence (ECC) for perfect lateral color alignment. Compatibility with Mystique Cinema ensures the projector is perfectly aligned 24/7, 365 days a year without requiring a maintenance visit.

"Our new series further expands Chris-

tie's robust range of solutions and choice of illumination platforms for the cinema industry," says **Allan Fernandes**, Director, Product Management, Cinema, Christie. "For small screens, the RBe projectors deliver great value, with low maintenance and long-life performance."

With Phazer illumination technology, RBe projection features more than twice the energy efficiency of a comparable Xenon projector, with the CP2406-RBe delivering 9.7lm/W, the CP2409-RBe 9.3lm/W, and the CP2411-RBe outputting 8.8lm/W, for a lower total cost of ownership.



CineLife+ RBe projectors are designed for improved image performance on small, high-gain screens

ELITE SCREENS UNVEILS THE EZCINEMA TAB-TENSION CINEGREY 4D SERIES

Elite Screens, Inc., one of the innovative companies that specialize in quality projection screens for retailers and integrators, announced the launch of its latest product, the **ezCinema Tab-Tension CineGrey 4D projection screen**. This revolutionary addition to the CLR/ALR product lineup is designed to combat matte white solutions and redefine portable projection experiences with its advanced features and user-friendly design.

Users can now experience unparalleled image clarity and brightness even in well-lit environments with ambient light rejecting technology embedded in the CineGrey 4D



The ezCinema Tab-Tension CineGrey 4D Series is an innovative portable ALR projection screen

screen. This angular-reflective projection material works exclusively with standard

“long” throw projectors to display the best picture possible. Achieving ISF certification for accurate color reproduction, the CineGrey 4D optimizes picture quality to perfection.

The ezCinema Tab-Tension CineGrey 4D uses a tensioning system to ensure a flat, wrinkle-free surface for optimal image quality, making it ideal for professional presentations, family rooms, training facilities and home theaters. Designed with convenience in mind, the ezCinema screen ensures a hassle-free setup process and comes with a durable carrying bag for effortless portability.

CORNEA LAUNCHES NEXT-GEN DIGITAL VIDEO WALL SERIES TO REVOLUTIONIZE ADVERTISING LANDSCAPE

Cornea, one of the leaders in display solutions, introduced its latest digital video wall series, poised to redefine visual experiences, and transform the advertising industry. Offering unmatched clarity and versatility, Cornea’s innovative video walls are set to revolutionize the way businesses engage audiences, both indoors and outdoors.

The **Cornea Video Wall** line-up offers a diverse range of pixel pitches, from **P1.8 to P10**. These state-of-the-art displays ensure exceptional performance in any environment, whether for indoor presentations, outdoor advertising, or immersive visual experiences. Cornea’s digital video walls represent a strategic investment for businesses looking to elevate their advertising to new heights.

Ankit Garg, Director of Cornea, ex-



Cornea's latest digital video wall series include P1.8 indoor, P 2.5 indoor, P 3 indoor, P 4 indoor, P4 Outdoor, P5 Outdoor, P6 Outdoor, P8 Outdoor, and P 10

pressed his excitement about the transformative potential of the latest product release, stating, “Cornea is committed to pushing the boundaries of display technology to provide our customers with unparalleled visual experiences. Our new digital video wall series represents a fusion of innovation and craftsmanship, delivering breathtaking image quality

and versatility that will redefine advertising standards.”

Key Features of Cornea Digital Video Walls

Vivid Picture Quality:

Equipped with industry-leading 4K resolution and superior color representation.

Wide Viewing Angle: Ensures captivating visuals from any perspective.

Versatile Arrangements: Customizable display modes for various advertising needs.

Ultra-slim Bezels: Seamless presentation of content for enhanced viewing.

User Convenience: Easy colour customization and flexible rotation options.

Centralized Management: Streamlines advertising operations through remote maintenance.

VIEWSONIC INTRODUCES PX749-4K HOME ENTERTAINMENT PROJECTOR AND REVOLUTIONARY SOFTWARE PLATFORM EDSYNC

VIEWSONIC LAUNCHES PX749-4K HOME ENTERTAINMENT PROJECTOR FOR INDIAN USERS

Adding projector line to its PX series, ViewSonic Corp., one of the leading global visual solutions providers, launched PX749-4K projector in India. The successor of PX748-4K projector is a comprehensive home entertainment projector equipped with advanced and upgraded features. The PX749-4K projector caters to diverse entertainment needs. This projector delivers stunning 4K visuals, ensuring an immersive viewing experience for movies, gaming, and more. Additionally, the projector is compatible with Xbox consoles for an immersive gaming experience. With this feature, the projector fills out the Xbox line-up of ViewSonic across Lamp, LED, and Laser technology.

Muneer Ahmad, Vice President of Sales and Marketing, ViewSonic India, said, "We are committed to providing comprehensive visual solutions that enhance the viewing experience meeting the needs of our consumers. Adding PX749-4K projector to our PX series we are setting a new standard for immersive home theatre entertainment as this is advanced than its predecessor. With this addition, we are also giving our users an add-on experi-

ence of gaming. With the PX749-4K, we are pushing the boundaries of innovation, empowering gaming and home entertainment enthusiasts to immerse themselves."

Ultimate Gaming Experience with multiple connectivity options

This projector is equipped with 4.2ms Ultra-Fast Input and a 240Hz refresh rate. It holds an exclusive "Designed for Xbox" certification. This means that the projector is not only compatible with Xbox content resolution, but also with Xbox CEC. The PX749-4K features a premium Harman Kardon speaker system for an immersive

refresh rates.

Flexible Installation Options with the PX749-4K Home Projector

The upgraded version of PX748-4K projector boosts 4,000 ANSI Lumens, guaranteed to produce clear and bright cinematic experiences even in bright spaces. Its 1.3x optical zoom, warping adjustment, and side projection capabilities, allows consumers to create a stunning 300" screen on any surface, transforming any space into a captivating viewing environment. The compatibility with home automation systems via LAN control and

12V trigger output makes it an ideal addition to any smart home setup, seamlessly integrating into existing ecosystem.

The projector was created to not only deliver stunning color accuracy and brightness but also to support advanced

HDR and HLG content, ensuring every image is rich in detail and vibrancy. Whether indulging in a cinematic experience in home theater or engage in gaming, the PX749-4K brings an immersive viewing experience to the audience.



PX749-4K is perfectly compatible for gaming experience with 4.2ms ultra-fast input and a 240Hz refresh rate

fusion of stunning visuals and captivating audio. Offering unparalleled versatility, this projector features HDMI 2.0 (twice), USB-A, 3.5mm audio output, RJ34, and RS232 ports. PX749-4K allows seamless integration for Xbox-exclusive resolutions and

VIEWSONIC INTRODUCES EDSYNC, CUSTOMIZED FOR INDIAN EDUCATION SYSTEM

ViewSonic is continuously improving the education offerings and therefore, have expanded its ecosystem by introducing 'EdSync', a complete solution to all the stakeholders - inside and outside of the school - Principal, admins, course co-coordinators, teachers, parents, and the students.

One of the distinguished factors is that it is highly customizable platform that consolidates various modules and features into one holistic solution. EdSync aims to streamline educational institutes' daily operations by seamlessly integrating all stakeholders including the vendors of the school. In addition to this, EdSync also provides separate web interfaces & mobile apps for all of them, for seamless operations. With such an

array of offerings, EdSync will help replace 7-8 different softwares and will become a one-stop integrated solution for the school management.

EdSync is AI powered and offers automated timetable generation, AI chatbot

trained on all the school documents and offers lesson plan generation for the educators that would save their time and focus on students' engagement rather than multitude of paperwork.

EdSync is an amalgamation of LMS, Admin ERP and Academic ERP. Some of the

key features embedded in EdSync includes the comprehensive LMS empowering educators and students throughout the educational journey. By digitizing learning and student assessments, it improves educational experiences for both educators and students, fostering accessibility, efficiency, and effectiveness in learning. The system also enables student Tracking System, admission, fee, and transport management.



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With the AV integration in large venues like the *Yashobhoomi Convention Centre* and *Statue of Unity*, top systems integrators strive to create a benchmark with impeccable AV projects delivered in India. Presenting a view on the cutting-edge integration of Yashobhoomi Convention Centre, **Ritika Pandey** gets in touch with **Ajay Parwaney** and **Aarti Parwaney**, Directors at **Pyramid Technologies** to uncover the hard work that goes behind delivering such state-of-the-art AV projects and understand the dynamics from the team's perspectives.



Leading Systems Integrator PYRAMID TECHNOLOGIES Crowns **YASHOBHOOMI** with 8,800 sqm LED Façade

*Deploys Convention Centre with World-Class AV Solutions
and Sets New Standards for Large AV Convention Venues*



P pyramid Technologies is one of India's fastest-growing systems integration enterprises that ensures the delivery of turnkey AV solutions to businesses requiring best-in-class technologies and operational efficiencies. With the team's knowledge quotient on providing robust integrated solutions and their extensive systems integration experience, Pyramid Technologies caters to engineering, installing, and integrating across a multitude of systems with plenty of room for expansion and retrofits in the future.

The project's vision

Standing true to its name, the Yashob-

hoomi Convention Centre (earlier called India International Convention Centre (IICC) is the country's largest convention and exhibition centre aimed to position India as a prominent player in the global convention industry. The inauguration of this monumental achievement by none other than India's Prime Minister, Narendra Modi, on September 17, 2023, is a testament to its national significance. As one of the largest and most advanced MICE facilities worldwide, it now firmly secures itself among the leading modern convention centres, attracting many attendees and exhibitors from India and overseas. This achievement reaffirms the dedication to

crafting cutting-edge solutions that dazzle with their sheer scale and seamlessly integrate with the fabric of contemporary urban living.

Pyramid's role

Pyramid Technologies played a pivotal role by undertaking comprehensive system integration for both the outdoor LED façade and the extensive audiovisual systems, which contributed to transforming the audio-visual vision into reality. The impressive 8,800 square meter LED media façade and state-of-the-art audio-visual integrations inside the premises have elevated the convention centre's global



Hon'ble Prime Minister, Narendra Modi at one of the conference rooms on the day of Yashobhoomi Convention Centre's inauguration

visibility.

Pyramid's role involved engineering, supplying, installing, testing, and commissioning AV Systems for this sprawling 1 million square meter facility and an 8,800 square meter LED media façade, which envelopes the entire 360° crown of the convention centre. The audiovisual systems package encompasses a wide range of cutting-edge technologies, including one of the largest wireless conference systems for over 1400 delegates, simultaneous interpretation systems of nearly 6000 delegates, audio for nearly 60,000 sqm of exhibition halls, massive projection screens within the convention centre going up to 552" diagonal, reinforced sound for the 6,000 seater auditorium in divisible configurations with unparalleled audio quality and uniform sound pressure level touching more than 110dB, digital signages across

"There is a lot of redundancy involved with the built-in systems including the OCC room, data centre, and the back-up data centre where all the back-end equipment is housed for the façade and the control systems. However, the primary control is within each space where mixers, amplifier racks or system power ups including the AV head and equipment are situated."

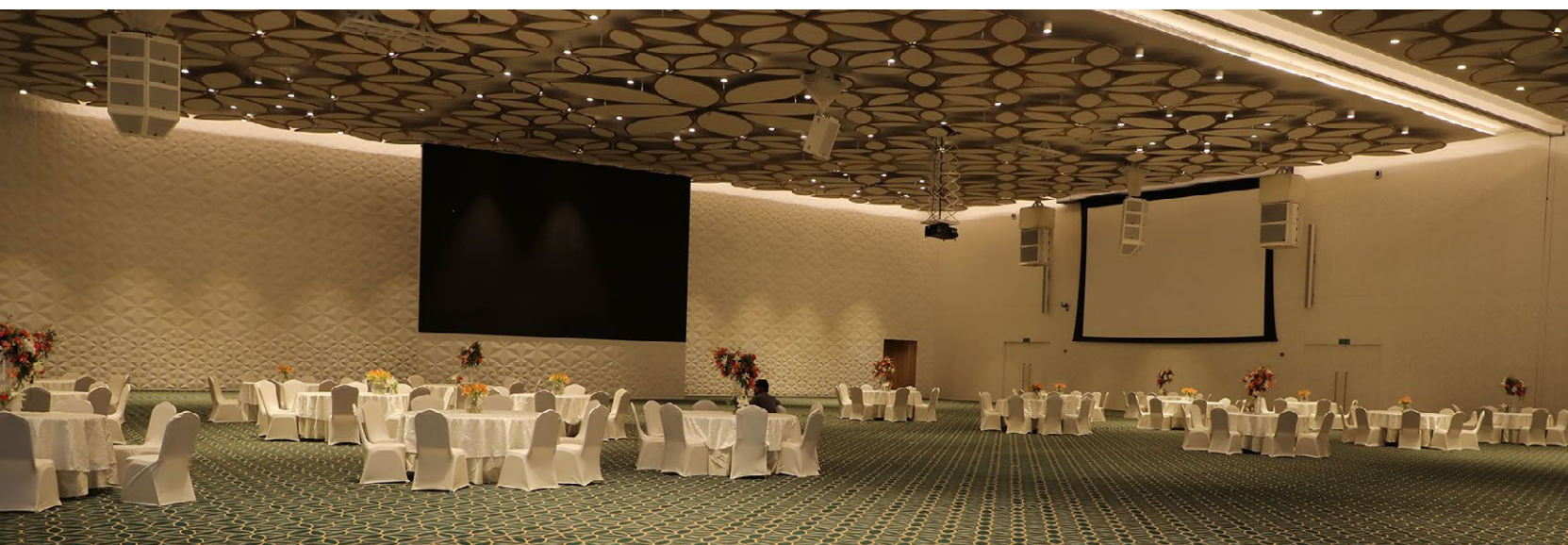
Ajay Parwaney,

Director – Operations, Pyramid Technologies.

the facility of 140 endpoints and broadcast systems to name a few. Augmented reality video walls of various sizes, including a giant indoor LED wall, also form part of the pre-function spaces within the facility.

The scale of the install and the challenges

The install for both inside the Convention Centre and the façade was to be



Divisible conference rooms at the Yashobhoomi Convention Centre with wireless conferencing and live interpretation systems

simultaneous which involved synchronized installations of the entire spectrum of Audio and Video systems. The project involved deployment of an all-encompassing AV experience for the facility.

The LED media façade posed a particularly complex challenge due to the unique structural configuration, which featured a distinctive 44.5-degree angle. While visually striking, this architectural innovation presented complex hurdles during the installation process. To overcome this challenge, Pyramid employed extensive structural analysis, precise measurement techniques such as deflection studies, sun path analysis for daytime viewing, and meticulous alignment of the modules with the structure to maintain vertical linearity and eliminate any unsightly gaps. The expertise and precision brought to bear on this task ensured that the media façade has become a standout feature of the IICC.

Admiring the project delivered by the team, Ajay Parwaney stated, "We are extremely proud to be part of this monumental project, which has brought India to the forefront of global convention events."

Commenting on the skill set required for Yashobhoomi's integration, he further shared that L&T Construction, the turn-key contractor for this project, defined stringent guidelines for appointing the AV partner for this project considering the duration of the project and the kind of systems installed. The integration company had to deliver according to the timelines for the project, adhering to the stringent technical documentation, including third-party factory acceptance tests for each system at the OEM's facilities globally. They needed someone who could manage the whole spectrum of project management, especially with its massive size, where all tasks were being performed parallelly on different segments, including different floors of the project and the façade itself." He added, "Façade is way beyond AV. It has complex mechanical engineering alongside electrical calculations, which are all required during the integration, including deflections, sun path analysis, and more. L&T appointed a special team to align with the interfacing requirements of the steel structures and the LED Media Façade to manage the immense work efficiently."

Integrating cutting-edge AV solutions

The client wanted to create a global hub for exhibitions and conferences.



15 meters AR wall at the main auditorium of Yashobhoomi Convention Centre provides glimpses on the development of India



Main auditorium of the site caters to as large as 6,000 people for grand gatherings or celebrations



Heritage wall at the centre of the venue ensures visitors experience the best-in-class technology while informing them about the cultures of India

From the façade to the conference rooms, the top-notch technologies facilitated at the convention centre speak a lot about the team's focus on the little details that justify every corner of the facility. When talking about the AV systems design, Ajay Parwaney highlighted, "The redundancy involved with the built-in systems, including the OCC room, data centre, and back-up data centre where all the back-end equipment is housed for the façade and the control systems. Reflecting on the challenges encountered during project design and execution, what truly stands out as a remarkable conclusion is the meticulous verification

of each feature outlined in the datasheet during handover. This thorough process ensures that every functionality is not just promised but demonstrated, ensuring a successful outcome. This whole project was well-thought-of, documented, and approved by the required authorities, and that's why we think it is aligned beautifully with what we imagined." Parwaney continues, "These are the projects where your patience is tested. From project management, every step requires perfect planning and execution because the pre-conditions towards any downtime are stringent, directly affecting the outcome."

Diving tech deep

Heritage wall at the centre of the venue ensures visitors experience the best-in-class technology while informing them about the cultures of India

The façade

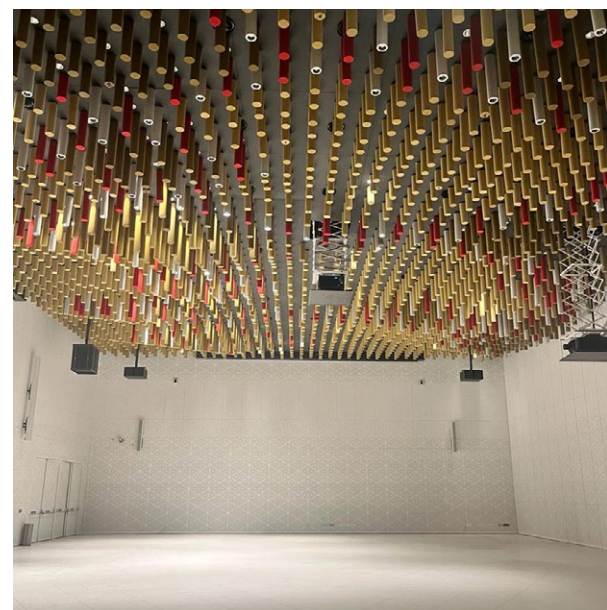
The façade installation on the building's crown seemed like an impossible task because of the challenges involved with its construction. The crown is at 44.5° angle (approx. 45°) and for the edges to meet, the customization in the modules was quite significant. Every piece connecting to the sides was unique in terms of length because the strips must be altered to that length along with the further alteration capability at the sides. Another important part was the structural interfacing, as coordinating and installing anything at that height was a huge challenge, and therefore, the deflection study was done to evaluate the expansion-contraction phenomenon. The resolution was pre-decided as the requirements were quite clear about 70% visibility from inside to outside.

Augmented Reality

In the lobby of the main auditorium, there is a huge AR wall of around 15 meters width that gives a walkthrough on the development of India. Further there is a Heritage wall which majorly brings heritage content from different cities of India focused on informing the visitors about the country. There are media walls on several floors with a magic mirror deployment.

Conferencing and interpretation

Inside the Yashobhoomi Convention



Multiple conference rooms at the site allow visitors to catch up on the most important agendas of the industries together

Centre, the teams have constructed world-class conference rooms on all floors that can host multiple audiences. Ranging from 900 to as small as 8 people in a conference room, different rooms are setup to hold the audience based on the meeting's requirements. The conference halls are equipped with wireless conferencing and have over 1400 delegate units. These rooms are divisible and can cater to the meetings based on the conference needs. Furthermore, the control units with the translators at the conference halls help manage the 6000 delegate interpretation systems, built-in with multiple languages to understand communications in the users' desired language.

Connecting attendees and exhibitors

Yashobhoomi centres its attention on a visitor-centric facility and, therefore, invites many exhibitors and attendees to participate. In fact, a government official stated that more than 200 exhibitions at the venue are planned within the next two years majorly focusing on digital innovation, smart manufacturing, and many other exhibitions from major sectors.



A view of the entrance towards the exhibition halls at the Yashobhoomi Convention Centre

The facility's exhibition halls are about 60,000 sq. m. and are integrated with complete AV systems, which is massive in terms of magnitude. The space is shared between Exhibition Halls 1 and 2. With the construction of the Delhi Express Metro Line right across the facility, it will become more feasible for the attendees to join the exhibitors on the show floor.

Conclusion

With spot-on system design and integration involved in the construction of this

venue and the fact that it is the largest convention centre in India, Yashobhoomi is surely going to make the list of the world's largest convention centres.

Concluding the conversation with the AV-ICN team, team Pyramid said, "It was a highly satisfying install and with the help of support from the OEMs, L&T, and the overall Project Management team, this project is our pride." Ajay and Aarti Parwaney added that the Media Façade is not only the crown of Yashobhoomi but also the crown of our projects."

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L to R: Adrian Ickeringill, Director of Sales, Sonance, Rachel Jacob, Architect, Munro Acoustics, and Prashant Govindhan, Director – India, Generation AV

A Panel Discussion on Sound in Visual Design: Integrating Invisible Sound Into Aesthetic Spaces

In this conference session held during PALM + AV-ICN Expo 2023, titled, 'Sound in Visual Design – Integrating invisible Sound Into Aesthetic Spaces', Prashant Govindan, Director – India, Generation AV (India) Pvt. Ltd., Adrian Ickeringill, Director of Sales, Sonance, and Rachel Jacob, Architect, Munro Acoustics, interact about the design elements required in aesthetic environment, audio design challenges, and how efficient teams overcome these challenges. Panelists further take the discussion towards latest technologies, for instance, 'the invisible speakers' that is a perfect audio solution for clients looking to create aesthetic spaces.

Prashant Govindhan kicks off the conversation by putting a question forward – Is form more important than function or vice versa. Addressing the question, Rachel Jacob states, "I think that depends on the functionality of the space. Let's say, there's a living space, there you might have background music so form will take over function. However, in a studio space, you can function over the form. With an architectural approach, when we start designing space, the main point of view is the aesthetic." With a further emphasis on the industry overlooking the design aspects of sound, Rachel Jacob shares, "The issue here is when we are



Adrian Ickeringill, Director of Sales, Sonance, Rachel Jacob, Architect, Munro Acoustics, and Prashant Govindhan, Director – India, Generation AV, felicitated with the PALM and AV-ICN Expo speaker certificates

designing, we are keeping clients' requirements in mind, and the AV comes in very late. That's why it is very hard to integrate AV and speakers into our designs. But I suppose, if we were to incorporate those changes into our designs it would be a good integration of speakers."

Govindhan continues the conversation with Adrian Ickeringill, asking, "What's your take on the same? Should function take precedence of form or is form the real essence of design?" Ickeringill replies, "It depends on the clients' expectations and many of the applications where form takes the lead. However, as Rachel rightly mentioned, AV is the last thing people think about when it comes to design perfection. But then, when you take precedence of environment and experience, function kicks in more and more. We tried to get involved at very early stages of design in conjunction with the design community to ensure that whatever blends with the space works well."

Audio design challenges

Govindhan tries to interrogate on the scenarios where clients' requirements become a challenge for the audio engineers, putting forward a question for the panellists, "Can you list some of your experiences where client demanded a different approach on the audio design front, for instance, doing less with the speakers or asking for a differently painted wall, etc. and how do we get past that argument?" Jacob states, "I basically integrate AV with the architecture by doing a lot of 3D to prevent going through all the data and putting up the speakers or changing its colours. For instance, we are designing a luxury space in Bangalore and there's a swimming pool. So, one entire wall

is artwork, and the ceiling is mirror. Initially we had a space with black speakers on a wall, but we weren't aware that there was an artwork wall that side. So, we had to come up with a different integration scenario altogether." Many other examples are brought to the audience's attention by Jacob while discussing these challenges ahead.

Adding to this, Govindhan shares his personal experience with one such client when working for a heritage building in Mumbai. He mentions, "The client wanted to cast movies in the heritage building with the similar sound that is experienced in cinemas and he allocated a complete floor for it. However, the building was constructed with cast iron pillars, arches, etc. We tried accomplishing the project's requirements and we were half-way there but it's never a full-fledged solution." Govindhan gets back to Ickeringill, asking his view on such situations and how as a manufacturer he manages to solve these problems, to which Ickeringill replies, "One quick example we

We, as the system providers, with our invisible speakers, try to provide great frequency coverage and high level of SPL. Another aspect they like about our speaker design is that we bring in a 170° dispersion while general speakers provide 120° at best.

have is with our invisible speaker technology. The integrator was in Finland, and he was into integrating immersive experiences in museums. They used conventional, amplified speakers, which were fantastic for their purpose, but the issue was, in the museum, the client wanted to achieve a specific design with no visibility of the speakers around the halls. So, we stood up and demoed our invisible speakers with a full immersive experience that completely blended." He adds, "It's always has been a compromise when it came to hiding the speakers and for 20 years, we have had that solution with our technology – Designed to Disappear. So, the first thing we did was to develop a white-band drive-unit with mid-range array and a woofer and blend it together to create the speaker. With this, we found that we were getting the blended solutions from the flat-diaphragm and design within the white-band speaker array. At the base, we were getting the resonant motion. However, if we just allow the two features to blend together, we will get distortion, coloration, and a bad experience in terms of sound. Therefore, one of the key features of the invisible speakers is that it has never delivered a base performance. Also, with the plaster or paints around the walls, sound gets interrupted. So, we have created the technology in such a way that it would not be impacted with any of the frontal panels or coverage in top of the solutions with maximum SPL level. Frequency ranges of our woofers include our 6-inch models from 50 Hz to 20 KHz, 8-inch woofer that goes from 40 Hz to 30 KHz, and 10-inch that goes from 35 Hz up to 30 KHz." The audience get to look on the woofer's image that explains the technology in depth too.

As the audience's curiosity rise to the topic of discussion, questions about invisible speakers come up during the session to which the panellists share their technical know-how. To clarify more about the invisible speaker technology, Ickeringill states, "The plaster in front of the invisible speakers can be of 3 mm maximum with a layer of paint or be covered with wallpapers or any other material that allows a flexible sound delivery."

Govindhan puts forwards another important question aligned with the response of Ickeringill during the panel discussion, "Is there a DSP or some formula to be able to compensate for the loss if frequency when it comes to invisible speakers inside the walls?" Ickeringill clarifies, "The whole product is designed to work with the coverage on

Continued on page 36

PINK NOISE PROFESSIONALS CREATE A MESMERIZING LIGHT & SOUND SHOW AT HUSSAIN SAGAR LAKE

Hussain Sagar Lake, one of the prominent landmarks in Hyderabad, embarked on a revitalization project aimed at enriching visitor experiences and redefining leisure activities in the area. Central to this transformation, was the integration of a professional sound setup for its captivating musical fountain. The challenge was to enhance the allure of

The Installation

Pink Noise professionals in partnership with **Aura Bright Lights Pvt Ltd** successfully implemented a project guided by **Shri Narendra Naidu**, Chairman of Rhino Engineers Pvt Ltd, who provided expert consultation and design. We led the integration of premium sound equipment such

Inventory:

- EAW UX4410 Amplifier - 2 Units
- EAW MKD 1096-WP Black - 6 Units
- EAW MKC80 Black - 16 units
- EAW UX4403 Amplifier - 2 units
- EAW SB828P- WP Black - 2 units
- Dolby Digital Cinema processor - 1 unit



Hussain Sagar Lake in Hyderabad attracts visitors with a resounding impact, as Pink Noise Professionals deploy state-of-the-art sound systems with EAW MKD Series, MKC Series, EAW Subwoofer, and UX4 Amplifiers

Hussain Sagar Lake, making it a premier destination for both tourists and locals. The project sought to create a harmonious blend of sight and sound, elevating the overall ambiance, and offering visitors a truly immersive experience.

as the **EAW MKD Series, MKC Series, EAW Subwoofer, and UX4 Amplifiers**. With careful planning and execution, we harmonized the sound setup with the captivating visual display of the musical fountain, crafting a mesmerizing multi-

integrating professional sound setups in public spaces. By redefining leisure activities and enhancing visitor experiences, the project has not only revitalized a landmark but also set a new standard for urban development initiatives.

sensory experience for our audiences.

The Outcome

The revitalization project proved to be a resounding success, with the integration of the professional sound setup playing a pivotal role in enhancing visitor experiences. The harmonious blend of sight and sound not only attracted tourists from far and wide but also garnered widespread appreciation from the local community. Hussain Sagar Lake now serves as a benchmark for future urban development endeavours, showcasing the transformative power of innovative sound solutions.

Conclusion

The revitalization of Hussain Sagar Lake stands as a testament to the impact of

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BARCO ANNOUNCES COLLABORATION WITH NVIDIA AND SOFTACUITY TO ADD AI AND DATA ANALYTICS APPLICATIONS TO THE OPERATING ROOM

Barco announced a new collaboration with NVIDIA and SoftAcuity to bring NVIDIA Holoscan-powered Artificial Intelligence to Barco's Nexxis video-over-IP platform for digital operating rooms and interventional suites. Two innovative AI-powered products will be added to the Nexxis portfolio.

Barco is integrating NVIDIA Jetson Orin and IGX Orin system-on-modules into two new products, as part of its Nexxis platform for digital operating rooms and interventional suites.

Barco and SoftAcuity will develop two NVIDIA Holoscan-based products, featuring an innovative user interface, generative AI voice control, sensor arrays, high-fidelity audiovisual capabilities, advanced computing, and AI-powered data analytics capabilities. Both new products will be fully integrated into Barco's Nexxis ecosystem, benefiting from its uncompressed video-over-IP connectivity, and offering advanced

computing capabilities to all connected video sources.

"Barco's history is strongly connected with high-quality visualization and fast, powerful computer processing," says **Johan Fornier**, Executive VP for Surgical and Modality at Barco. "Our collaboration with NVIDIA and SoftAcuity will help prepare our Nexxis portfolio for a smart, AI-powered future, where surgical and interventional workflows are more flexible and more efficient for healthcare professionals and their patients."

Building the foundations for innovation in surgery

Based on these NVIDIA Holoscan-powered products, Barco plans to build a future-proof platform, with built-in scalability, capable of hosting multiple AI and data analytics applications for medical environments. The products will offer a simple and flexible setup to allow easy deployment of validated



internal and third-party AI applications, making it cost-efficient for partners integrating the Nexxis platform and for end-users working with it.

"The future of healthcare is software defined and AI enabled," said **David Niewolny**, Director of Business Development for Healthcare and Medical at NVIDIA. "Barco's adoption of NVIDIA accelerated computing hardware combined with the NVIDIA Holoscan edge AI software stack enables the rapid development and deployment of software-as-a-medical device applications, which has huge potential in enhancing patient care and streamlining or efficiency."

Q-SYS PROMOTES JASON MOSS TO VICE PRESIDENT, MARKETING & ECOSYSTEM

Q-SYS, a division of QSC LLC, announced the promotion of **Jason Moss** to Vice President of Marketing & Ecosystem. Concurrently, after nearly a decade of dedicated service, **Chris Humphrey**, Senior Vice President of Marketing, has announced his retirement for May.

Since joining Q-SYS in 2020 as Vice President of Corporate Development and Alliances and becoming a member of the executive team, Moss has significantly impacted the company's leadership. His extensive experience across marketing, sales, and product divisions has been instrumental in strengthening the Q-SYS brand through strategic partnerships with industry leaders like Google, Intel, and Microsoft, and expanding its presence in the IT industry. His proven track record of developing successful marketing



strategies that improve user adoption and brand awareness further reinforces his ability to drive our company's growth and success.

"With Jason's promotion, we're confident in his ability to lead us forward. His continued contributions and dynamic leadership, promise to elevate our marketing efforts, and we're excited for the future as he steps into this new role," says **Joe Pham**, Chairman & CEO, QSC. "As we bid farewell to Chris, his legacy of nurtur-

ing and empowering our team will be deeply missed. We appreciate his decade-long contributions and wish him all the best in retirement."

"I'm proud and honored to step into this new role," says Moss. "It's a privilege to work alongside one of the industry's top marketing teams. I look forward to

building on the foundation Chris and the QSC team have set while supporting our great Ecosystem programs and partnerships. Together, we'll push boundaries with innovative marketing strategies and propel our company to new heights in the technology sector."

"I am beyond grateful for my time at QSC. Collaborating with such a talented team, alongside our unique brand and cutting-edge technology, has been an absolute joy," says Humphrey.

DIVERSIFIED ANNOUNCES JAMES BERRY AS NEW MANAGING DIRECTOR OF APAC REGION

Diversified, one of the leading global technology solutions providers, announced that **James Berry** has joined the company as the Managing Director of Asia Pacific (APAC). Berry is an experienced executive leader with a proven track record of delivering excellence in commercial and operational outcomes, business value creation, risk management, sustainability, and team building across borders and cultures.

James Berry said, "It's an exciting time to be joining Diversified, a company that stands out for its expert understanding of the technological innovations and solutions needed to solve for today's evolving client challenges especially in areas like Artificial Intelligence (AI), cybersecurity, and the shift to intelligent, hybrid workspaces."

"From consulting and design to installation, service and management, the size, scale, and complexity of Diversified's



James Berry, Managing Director, APAC, Diversified

projects are unmatched in the market. I look forward to contributing to our international success and further establishing

our foothold as the top choice for clients seeking to maximise the value of their spaces, mitigate risks, and create unforgettable experiences."

Before joining Diversified, Berry was Managing Director at digital consulting tech company, **Atos**. He has also held senior leadership roles at financial services companies, including Worldpay, HSBC, and Standard Chartered, where he led global teams.

Eric Hutto, CEO, Diversified, said, "We are delighted to welcome James to the Diversified team. His deep knowledge across various sectors, including technology, financial services, supply chain, and health managed services, combined with his rich understanding of various international markets, positions him as an ideal leader to continue driving our growth in the APAC region, which is a strategic priority for Diversified."

AVI-SPL INDIA EXPANDS TO HYDERABAD

AVI-SPL, one of the leading providers of digital enablement solutions globally, announced the opening of a new office in Hyderabad, one of the fastest growing cities in India and the company's fifth location in the country. Since its incorporation in 2022, AVI-SPL India Private Limited has expanded at a tremendous pace, adding more than 150 team members, serving an increasing roster of local and global Fortune 500 customers, and earning the respected 2023 InAVate APAC Integrator of the Year APAC Award.

Hyderabad is a technology and operations hub for dozens of the Global Fortune 500 companies, including those who already work with AVI-SPL through its award-winning Global Strategic Accounts Program. AVI-SPL India's vision for Hyderabad is greenfield opportunities fueled by fresh demand for digital workplace and experience technology. The digital transformation taking place in the market warrants the company establishing a solid home base and deep pool of talent there.

"We're bringing a team of highly quali-



AVI-SPL's team in India for the opening of Hyderabad office

fied project engineers, installation technicians, project managers, and service delivery managers to Hyderabad," says **Mala Prasad**, Regional Director of AVI-SPL India.

AVI-SPL India has rich experience in satisfying the scale and complexity of the design-build and managed services needs of Hyderabad customers. With teams in the National Capital Region, Bangalore, Pune, and Mumbai already driving customer success and with the extensive global resources of AVI-SPL, the company

is well positioned to be a truly reliable partner to local companies transforming how people and technology connect for elevated customer and employee experiences that create value in the new digital workplace.

"AVI-SPL India has generated remarkable success for the customers they support across their region. They are quickly becoming an AVI-SPL center of excellence for customer delivery," says **Tim Riek**, Executive Vice President of Technology Solutions.

CLEAR-COM WELCOMES DAVE MACKINNON AS VICE PRESIDENT OF PRODUCT MANAGEMENT

Clear-Com announced the appointment of **Dave MacKinnon** as its new Vice President of Product Management. With an impressive background spanning over two decades, Dave brings a wealth of experience in government, broadcast, and public safety, making him a valuable addition to Clear-Com's executive team.

Dave MacKinnon's career path showcases a diverse and accomplished journey. With six years dedicated to working in the US Government, including roles with the Navy and the Department of Transportation, Maritime Administration, Dave has gained a profound understanding of mission-critical communications and public safety.

Following his government service, Dave spent twelve years at NBC Universal, further honing his expertise in the broadcast industry. His extensive tenure at one of the world's leading media companies has provided him with invaluable insights and strong relationships within the broadcast community.

In the subsequent three years as a consultant, Dave expanded his reach into public safety, government, and medical sectors, solidifying his connections with mission-critical communications vendors and clients. His strategic approach to consulting has fostered great relationships within the industry.

Dave MacKinnon is well-known for his exceptional network in both the government and military sectors. His ability to build and maintain strong relationships with key stakeholders has been a hallmark of his career. This, coupled with his deep understanding of mission-critical communications, positions him as an ideal leader for Clear-Com's product development team.

Expressing his excitement about joining Clear-Com, Dave MacKinnon said, "I feel like I've been part of Clear-Com since I was first a customer, and so I'm excited to formalize that relationship now. My goal is to establish partnerships with other vendors, clients, dealers, resellers, etc. I'm



Dave MacKinnon, Vice President of Product Management, Clear-Com

looking forward to visiting customer sites and learning new and unique workflows."

Dave is particularly enthusiastic about cloud initiatives, including Gen-IC, and is committed to driving innovation in the communication solutions space.

Clear-Com looks forward to leveraging Dave MacKinnon's extensive experience and industry relationships to strengthen its position as a leader in mission-critical communication solutions.

AVER AND BIAMP BRIDGE THE GAP FOR CONVERSATION TRACKING

AVer Information Inc., one of the award-winning providers of education technology and Pro AV solutions, announced a technology partnership with **Biamp**, one of the globally recognized innovators of extraordinary audiovisual experiences, unveiling a groundbreaking intelligent camera tracking solution. This collaboration uses data from **Biamp Parlé** conferencing microphones with Beamtracking technology to automatically trigger AVer cameras and focus

on active participants, ensuring everyone feels engaged and seen.

Beamtracking Parlé microphones continuously identify active speakers anywhere in the room. This voice data, combined with the industry-leading features of **Biamp Tesira** digital signal processors, delivers a rich audio experience with crystal clear voice reproduction. AVer's camera tracking solution seamlessly integrates with this dynamic

data stream, translating it into real-time camera actions.

"At AVer, we're thrilled to harness this innovative Biamp audio technology and take the conferencing experience up a level," said **Stanley Cheng**, Vice President at AVer.

"Biamp is on a mission to elevate the conferencing experience while making it simpler, from the end-user to the installer, and this collaboration with AVer is one more big step," said **Zach Snook**, Director of Product Management at Biamp.

For versatile camera control, this system offers presenter tracking to automatically follow the presenter, zone tracking for pre-defined areas, and a hybrid mode for combining the two. This flexibility, along with support for a wide range of AVer cameras and Biamp Parlé conferencing microphones, allows integrators to design conferencing experiences tailored to each room's specific needs.



ISE 2024 BREAKS RECORDS AT ANNIVERSARY SHOW

Integrated Systems Europe 2024 was one of the most successful editions in its 20-year history. Taking place at the Fira de Barcelona Gran Via venue, the show attracted 73,891 unique verified attendees from 162 countries, a record since the show's inception in Geneva in 2004. This represents an increase of 27% on the 2023 edition.

On Wednesday (31 January), the show had 51,617 visitors, the highest number ever in a single day beating the previous record by almost 22%.

The total number of registrations reached 95,396 with 172,627 visits across the four days. Attendee numbers for Friday were at 24,528, a record for the show since it went to a four-day event.

Alongside record-breaking occupation in the city's hotels, bars, and entertainment venues, exhibitors reported unparalleled footfall on booths across the largest ever ISE show.

The exhibition showcased its highest number of exhibitors with (1,408) and the largest show floor space (82,000 sqm net).

ISE 2024 was a testament to the innovation of the pro-AV and systems integration community. Exhibitors from around the globe presented state-of-the-art



solutions, ranging from advanced display technologies and immersive audio systems to smart automation and collaborative communication tools. The diverse array of products and services reflected the industry's commitment to pushing boundaries and enhancing user experiences.

Mike Blackman, Managing Director of Integrated Systems Events, commented, "In the illustrious 20-year journey of ISE, we have witnessed the transformative power of innovation and collaboration within our community. ISE 2024 not only reflects the cutting-edge technologies defining our industry but also serves as a testament to the enduring spirit of creativity and camaraderie. As we celebrate this milestone, alongside our co-owners AVIXA and CEDIA we look forward to continuing our commitment to being a global

platform for industry professionals."

The educational component of ISE 2024 was exceptional. The conference sessions, workshops, and keynote presentations from Multi-Academy Award-winning Director **Sharmeen Obaid-Chinoy**, and leading digital artists **Jeroen van der Most** and **Sofia Crespo** were curated to provide valuable insights into emerging trends, market dynamics, and technological breakthroughs. Renowned speakers in the conferences and on the show floor stages shared their expertise on topics such as Artificial Intelligence in AV, sustainable design, and the future of remote collaboration. Attendees had the opportunity to engage in meaningful discussions and gain actionable knowledge to stay ahead in the rapidly evolving industry.

The celebration of ISE's 20th anniversary added a special touch to the event. Commemorative events, retrospective installations such as the ISE Time Tunnel and Vintage Audio Museum, and acknowledgments of industry pioneers highlighted the incredible journey of ISE. This not only created a sense of nostalgia but also underscored the industry's resilience and adaptability in the face of technological evolution.

TOA ELECTRONICS PTE LTD ANNOUNCES NEW MANAGING DIRECTOR

TOA Electronics Pte Ltd announced that **Ninomiya Yosuke** has assumed the position of Managing Director from April 1st, 2024.

Ninomiya Yosuke began his journey with TOA Corporation, Japan in the year 2000, serving as a sales representative in the security market at the Nagoya office.

Over the years, he advanced in the company with his strong leadership and strategic skills. Notably, since 2009 his tenure as the Manager of Security Sales at the Tokyo sales office, showcased his ability to drive growth and deliver results.

In 2016, Mr. Ninomiya was appointed as the Managing Director of TOA Electronics (Thailand) Co., Ltd., where he successfully expanded the



Ninomiya Yosuke, Managing Director, TOA Electronics Pte Ltd

company's presence in the Thailand market. His dedication and achievements during his time in Thailand reflect his commitment to excellence and innovation.

We are thrilled to welcome Mr. Ninomiya to TOA Electronics Pte Ltd and anticipate in leveraging his extensive sales and management experience to elevate our business in the Asia Pacific region to new heights.

Catch more latest news from the AV industry in our upcoming issues.



Pink Noise Professionals integrates Clock Audio CRM 102, Work Pro Neo Series, Work Pro Amplifier, Erthpot Arche Series, and Keyer Series for seamless conferencing

Empowering Virtual Collaboration at CDRI

Pink Noise Professionals Deploy VC Room Solutions for Enhanced Collaboration Experiences

*In today's digital age, effective communication is essential for organizational success. CDRI recognized the importance of enhancing their communication infrastructure to foster collaboration among their teams dispersed across different locations. This case study highlights how **Pink Noise Professionals**, in collaboration with **Computer Ware India Pvt Ltd**, transformed CDRI's communication landscape by setting up a cutting-edge 20-seater video conferencing room. **Shailesh Awasthi**, Director Sales & Technical, Pink Noise Professionals shares the case study with **AV-ICN Expo Magazine** team, to elaborate on the meticulous planning and execution that went into this impressive AV integration.*

Challenges

CDRI faced several challenges in facilitating seamless virtual collaboration. The existing communication infrastructure was outdated, resulting in poor audiovisual quality and limited functionality for virtual meetings, presentations, and training sessions. With an increasing demand for remote interactions, CDRI needed a robust solution that would ensure superior audiovisual performance and easy integration with their existing systems.

Solution

Pink Noise Professionals in partnership with Computer Ware India Pvt Ltd, em-



For clear communications and productive interactions, the team integrates advanced audiovisual equipment at CDRI

barked on a comprehensive communication upgrade project for CDRI. The key components of the solution included:

State-of-the-art audiovisual equipment: Clock Audio CRM 102, Work Pro Neo Series, Work Pro Amplifier, Erthpot Arche series, and Keyer Series were selected to provide high-quality audio output and crystal-clear visuals, ensuring an immersive meeting experience for participants.

Seamless Integration: Meticulous planning and execution were crucial in seamlessly integrating the new technology with

CDRI's existing infrastructure. Through careful coordination and testing, the implementation process was smooth and efficient, minimizing disruption to daily operations.

User Training and Support: To maximize the benefits of the new communication system, CDRI employees received comprehensive training on how to utilize the video conferencing room effectively. Ongoing technical support was also provided to address any issues or concerns promptly.

Outcome

The implementation of the cutting-edge video conferencing room brought about significant improvements in CDRI's communication capabilities, like:

Enhanced Collaboration: Teams at CDRI can now conduct virtual meetings, presentations, and training sessions with ease, regardless of their geographical location. The superior audiovisual quality provided by the new system has facilitated more engaging and productive interactions among employees.

Increased Efficiency: The seamless integration of the technology solutions has streamlined communication processes at CDRI, reducing time spent on troubleshooting and improving overall efficiency.

Future-Ready Infrastructure: With a robust platform for virtual collaboration in place, CDRI is well-equipped to adapt to future technological advancements and evolving communication needs.

Conclusion

The successful collaboration between Pink Noise Professionals, Computer Ware India Pvt Ltd, and CDRI exemplifies the power of leveraging technology for organizational growth and efficiency. By implementing state-of-the-art video conferencing room, CDRI has enhanced its communication capabilities, empowering teams to collaborate effectively in a virtual environment. This case study serves as a testament to the transformative impact of innovative communication solutions in driving organizational success.

Inventory List:

- Clock Audio CRM 102- RF – 22 units
- Work Pro Neo 5 Line Pair – 3 units
- Work Pro PA 1254 Amplifier – 1 Unit
- Erthpot ARCHE AR331 – 1 unit
- Modular Conference table – 1 unit
- Erthpot Keyer 88 – 3 unit
- Erthpot Arche AR32 – 1 unit

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Advanced Collaboration Solutions for Clear View Interaction

SMART Board RX series

Built to evolve around the users' needs with market-leading ease of use, the RX series offers user-programmable tools to help the users support inclusive classrooms. The patented Tool Explorer technology takes interactivity and accessibility to the next level, recognizing real-world objects like SMART programmable tools to encourage students, including those who express themselves non-verbally, to engage in a whole new way.

Main Features include:

- Up to 40 points of touch
- 4K UHD user interface
- 2x 20W speakers and 15W subwoofer
- SMART Notebook • SMART Ink
- SMART Remote Management

Technical Specifications:

- Backlight LED Aspect ratio – 16:9
- Maximum display resolution – 4K UHD (3840 × 2160)
- Brightness – 490 cd/m²
- Display response time – ≤ 8 ms
- Viewing angle – 178°
- Touch technology – HyPr Touch with Advanced IR
- Touch features – Tool Explorer v2, Simultaneous Tool Differentiation, Object Awareness, Pen ID Silktouch
- Typical touch response time – ≤ 4 ms
- Frame rate – ≥ 300 Hz
- OS architecture – 64-bit
- Storage – 64 GB (up to 576 GB)
- User interface – 4K UHD (3840×2160)

Avocor H Series

The Avocor H Series redefines workspace integration, merging ultra-thin bezel elegance with top-tier functionality. Suited for various collaborative settings, it offers an immersive touch experience, user-friendly interfaces, and versatile integration, including seamless compatibility with the Lenovo ThinkSmart core.

Main Features Include:

- Ultra-thin bezel with PCAP technology
- Flexible mounting options and diverse connectivity including a 100W Type C port.
- Quick and easy installation and plug-in-and-play setup.
- Monitoring and managing displays with FUSE.
- Featuring Montage for seamless wireless sharing and Rise Vision for dynamic digital signage.

Technical Specifications:

- Backlight Direct-lit LED
- Aspect Ratio 16:9
- Resolution 3840 x 2160 @ 60Hz
- Response Time 6.5/6.5 ms
- Brightness 400 (cd/m2) w/bonded glass
- Contrast Ratio 5000:1
- Viewing Angle 178° / 178°
- Supported Colors 10 Bit 1.07 Billion Color
- Display Orientation Landscape
- Interface 2 x USB-B 2.0, 1 x Type C
- Built-in Speakers 2 x 16W - spatial-stereo downward facing
- Type Presence, ambient light Presence Sensor Yes, max 4 range

IQTOUCH TB1300 PRO

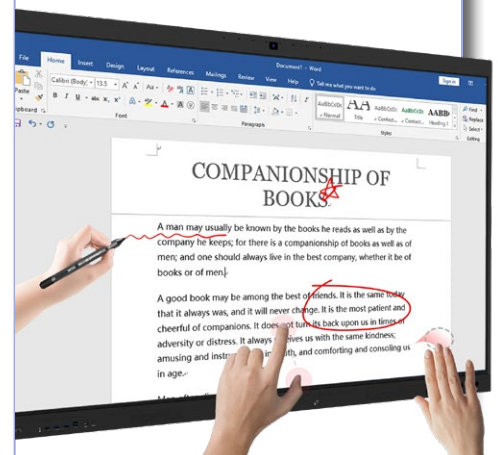
Powered by Advanced Android 13 and IQ OS V5.0, the IQTOUCH flat panel ensures lightning-fast performance with 8GB RAM + 128GB ROM. Combined with a 48MP AI camera and an 8-microphone array, the interactive flat panel secures top-notch audiovisual quality for video meetings.

Main Features include:

- Powerful 20W*2+20W Speakers
- Precision Touch and Writing Enhancement
- C Button Customization
- DMS Remote Control
- NFC Access Control

Technical Specifications:

- Brightness – 350cd/m2
- Contrast Ratio – 1200: 1 and 1600: 1
- Panel Type – TFT
- Backlight Direct LED (DLED)
- Resolution 4K UHD (3840*2160)
- Display Ratio 16:9 Response Rate 8ms (typ.)
- Refreshing Frequency – 60Hz
- Viewing Angle – 178°(H), 178°(V)
- Backlight Lifetime – 50,000 hrs
- Display Colors – 10-bit (1.07B) Glass 4mm
- Touch Technology – Infrared
- Touch Point – 40-point touch, 40-point writing under Windows, 20-point writing under Android
- Touch Resolution – 32768 x 32768 px
- Response Rate – <4ms (single touch), <6ms (max touch inputs)



Learning and interaction with spectacular visuals. With the ever-evolving landscape of pro AV industry, interactive displays or interactive flat panel displays are offering corporate spaces and college students to interact with remarkable visual presentations. Latest smart interactive technologies ensure wireless projection of content for educators and meeting hosts to experience seamless collaboration. This feature collates latest interactive displays by some of the best pro AV players in the country.

ViewSonic IFP105S

The ViewSonic ViewBoard IFP105S is a 105" interactive display with next-generation whiteboard technologies ideal for collaboration in corporate environments and higher education. With its ultrawide 21:9 aspect ratio and 5K resolution, this display delivers a huge interactive touchscreen and stunning visuals to boost collaboration and productivity.

Main Features include:

- myViewBoard software and ViewBoard Cast enhance collaboration with easy content sharing and annotation.
- Advanced touch with up to 40-point multi-touch.
- Stunning 5K resolution delivers incredibly detail and vibrant images.
- Built-in microphone and soundbar.

Technical Specifications:

- Microphone: Beamforming array x 8, noise cancellation
- Internal Speakers: 16W (x2)
- Subwoofer: 15W (x1)
- Consumption (max): 400W
- Consumption (typical): 200W
- Stand-by: <.5W
- Physical Controls: Power, Home, Back, Touch, Freeze, VOL-, VOL+
- Temperature: 32-104° F (0 - 40° C)
- Humidity (non-condensing): 20-80%
- Touch Technology: Infrared
- Touch Points: Windows: 40, Android: 20
- Tip Detection: Dual tips: 2mm and 8mm, Finger: 10-15mm, Palm: 30mm
- Regulations: CTUVus, FCC, Energy 8.0, EPEAT, CEC, Mexico, CE, CB, ErP, REACH, UKCA, RCM



- Ethernet LAN: (10/100/1000M) (USB Type-C 10/100, Android & PC 10/100/1000)
- Wifi: Optional VB-WIFI-004 adapter, 802.11AC + Bluetooth 5.0
- Bluetooth: Optional VB-WIFI-001

Samsung Flip Pro 75"

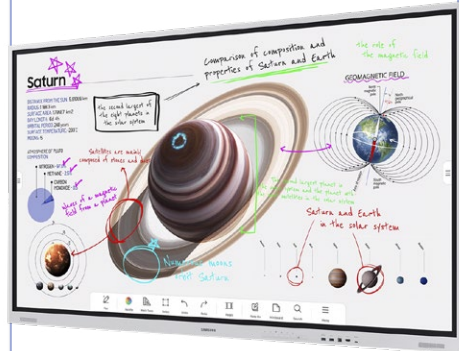
Flip Pro delivers industry-best latency at just 26ms, with prediction logic applied to ensure a realistic, smooth drawing experience with 2,048 points of thickness built directly into the display to unlock creativity. Plus, Flip Pro enables multi-touch for up to 20 people for enhanced interactivity.

Main features include:

- Fast & multi-touch.
- 3-in-1 USB-C port.
- Video call applications.

Technical Specifications:

- Diagonal Size – 1m 89cm (75")
- Panel Type – VA
- Resolution – 3,840 x 2,160
- Pixel Pitch (HxV) – 0.2451x0.2451(mm)
- Brightness (Typ) – 350 (w/o glass), 220 (w/glass)
- Contrast Ratio – 4000:1 (without glass)
- Viewing Angle (H/V) – 178/178
- Response Time – 8ms
- Colour Gamut – 72%
- Glass Haze – 2% (without glass)
- H-Scanning Frequency – 30~81kHz
- Maximum Pixel Frequency – 594Mhz
- V-Scanning Frequency – 48~75Hz
- Operation Time Support – 16/7



MAXHUB Ultrawide 5K Display

MAXHUB Ultrawide 5K next-generation display is enhanced to be compatible with all the leading industry collaboration software. Invigorate every interchange with smoother, more engaging meetings. Users can simply plug and play with automatic activation of the device's audio, camera, screen, and files. Dual 16W + 15W built-in speakers vitalize content sharing for maximum impact.

Main features include:

- Engineered to optimize each pixel with 5K clarity.
- Panoramically wide viewing angle with no blind spots.
- A professional, commercial-grade anti-dust, anti-reflective coating insures long-lasting durability.

Technical Specifications:

- Panel Type – VA
- Haze – 25% (Anti-Glare)
- Aspect Ratio – 21:9
- Native Resolution – 5120*2160
- Refresh Rate – 60Hz
- Brightness (Typ.) – 400 nits
- Backlight Type – Direct Lit
- Contrast Ratio – 4000:1
- Viewing Angle (H x V) – 178°(H / V)
- Response Time – 6.5ms
- Lifetime (Min.) – ≥50,000 hours
- Operation Hours (Hours / Day) – 16/7
- Power Supply – 100-240V~50/60Hz
- Speaker Power Output – 2 x 16W + 15W



NEC CORPORATION INDIA UNVEILS ADVANCED SMART CITY TECH PRODUCTS

NEC Corporation India, one of the leaders in IT and network technologies and a wholly owned subsidiary of NEC, announced the launch of enhanced technology solutions as part of the Global Smart City Suite that includes NEC Mi-Command (Integrated Command and Control Centre), NEC Mi-City (Citizen Engagement Portal), NEC Mi-Eye (Intelligent Video Analytics), and NEC Mi-WareSync (Warehouse Management System). These solutions aim to provide transparency and visibility for efficient management and decision-making, ensuring seamless operations among organizations and authorities, and offering enhanced experiences for citizens, busi-

nesses, and communities.

Aalok Kumar, Corporate Officer & Senior VP - Head of Global Smart City Business, NEC Corporation & President & CEO, NEC Corporation India, said, "NEC has played a pivotal role in shaping India's digital and social infrastructure, particularly in public safety, smart cities, logistics, transportation, and more. These differentiated intellectual properties will be a big step towards future proofing our societies through smarter governance and empowering citizens in this digital era. Our extensive experience in navigating the scale and complexity of a rapidly growing nation like India

and creating truly connected nations.

NEC extends its influence by spearheading initiatives in smart cities, intelligent transportation, and smart logistics. NEC also has one of the most robust AI practices that cuts across various industry verticals globally.

NEC Mi-Command (Integrated Command and Control Centre)

NEC Mi-Command is an Integrated Command and Control Centre (ICCC), offering a single, unified platform for efficient city operations and management. It empowers smart cities to tackle challenges related to urban infrastructure development, resource management, and incident response. It provides capabilities such as alert management, incident management, standard operating procedure (SOP) management, device management, geospatial tracking, live dashboards, live video feeds, analytics, and insights. It is a key component of NEC's comprehensive solution for smart city and enterprise management, offering a highly customizable, data-agnostic, and security-focused approach to address a wide range of operational needs and requirements.

NEC Mi-City (Citizen Engagement Portal)

NEC Mi-City is a comprehensive platform designed to strengthen the connection between citizens, governments, and agencies. This unified citizen services web portal simplifies access to government services, offering a user-friendly interface for tasks such as permits, licenses, and document retrieval, eliminating the need for long lines and complex processes. Beyond service access, NEC Mi-City empowers citizens with information on policies and reforms, while enabling agencies to communicate directly with the public, fostering transparency and collaboration.

NEC Mi-Eye (Intelligent Video Analytics)

NEC Mi-Eye is powered by AI and Machine Learning, delivers real-time insights on customer behavior, operational efficiency, and security. With features like Person-



nesses, and communities.

NEC's technological solutions have been at the core of India's infrastructural development, positively impacting the lives of the people. As part of 'In India for India, From India for Global' focus, the rich reservoir of engineering talent and diverse use cases from India are being replicated at a global scale to fuel the next wave of growth for NEC globally. Striving to address the needs of rapidly evolving communities, businesses and governments, these solutions focus on three key functions aligned with a vision of futuristic cities: strengthening the digital foundation, streamlining processes, and enhanc-

has helped us unearth numerous real-life technology deployment use cases which can be applied to various geographies globally. This underscores our dedication to transforming communities by enhancing safety and intelligence, thereby shaping the future of technology ranging from the outer reaches of space to the depths of the oceans."

NEC is a 124-year-old organization that has always created solutions for society, keeping people at the center of innovation. As one of the world leaders in biometrics and submarine cable systems, NEC holds a prominent position in advancing digital transformation

Continued on page 27

CRESTRON EXPANDS AUDIO-OVER-IP FUNCTIONALITY WITH FOUR NEW DM NAX EDGE DEVICES

Crestron Electronics, one of the global leaders in home automation, announced four new **Crestron DM NAX Audio Edge Devices** to provide seamless interoperability and performance between audio sources for any AV-over-IP system.

“When homeowners invest in an audio system, there is an expectation that they can easily select and use any audio source in their home,” said **Michael Short**, Sr. Director of Residential & Hospitality Marketing. “From turntables to karaoke gear, it’s simply easier and much more enjoyable when you can seamlessly control your audio system sources in one place, and that is what these four new Crestron audio accessories deliver. Everything that sits on the edge of your network is brought into your Crestron DM NAX system and controlled by the Crestron Home OS for pure listening pleasure.”

Each new accessory is available in two flexible form factors: wall plates or surface mounts — a single network connection allows homeowners to control and manage the device through the Crestron Home OS. Other features include an onboard DSP for tone shaping and signal optimization. All new edge devices are compatible across DM NVX AV-over-IP, DM NAX Audio-over-IP, AES67, and Dante audio networking platforms. Additionally, the edge devices are powered via PoE, eliminating the need for local AC power. The four devices include:

The DM NAX Wall Plate with Bluetooth

Connectivity and Unbalanced Analog

Audio Input and Output: DM-NAX-BTIO-1G — Acting as something of a “wildcard,” DM-NAX-BTIO-1G is a wall plate with Bluetooth communications and analog inputs and outputs that adds Bluetooth audio to any DM NAX Audio-over-IP, DM NVX AV-over-IP, Dante audio network, or AES67 AoIP system. Quite simply, it bridges any audio source to DM NAX technology. Android OS users don’t benefit from some-

ble sound, this device offers stereo analog audio outputs, allowing seamless integration with a professional audio system. With onboard DSP, users have complete control over tone shaping and signal optimization, ensuring the highest-quality audio experience. There are no messy cables or complicated setups, as this edge device provides power and audio signals through a single network cable. Designed with elegance and functionality in mind, its slim-line single-gang housing fits into any environment.

The DM NAX Converter with Balanced Analog Audio Input and Output: DM-NAX-AUD-IO — The DM-NAX-AUD-IO provides a way to bridge traditional analog media sources such as phones, laptops, media players, and even turntables into an AV-over-IP audio setup. Power and audio signals are delivered through a single network cable, so configuration is a snap. The device features an extremely compact sub-1/4 rack housing, making it one of the most discreet devices in your system.

The DM NAX Converter with USB and Unbalanced Analog Audio Input and

Output: DM-NAX-AUD-USB — This is the solution for connecting USB devices to DM NAX technology, allowing you to stream your favourite service — or even YouTube video, for that matter — and

Continued on page 28



Crestron DM NAX Audio Edge Devices provides seamless interoperability

thing like AirPlay software, so bluetooth connectivity is a fantastic option to source audio to this wall plate.

The DM NAX Wall Plate with XLR Input and Balanced Analog Audio Output: DM-NAX-2XLRI-1G — Whether a professional musician, a DJ, or just a lover of incredi-

NEC CORPORATION INDIA UNVEILS ADVANCED SMART CITY...

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al Protective Equipment (PPE) detection, intrusion alerts, and vehicle recognition, it enhances security, and operational efficiency across sectors, facilitating data-driven decision-making.

NEC Mi-WareSync (Warehouse Management System)

NEC Mi-WareSync is a software plat-

form acting as a catalyst for innovation in logistics & supply chains, playing a pivotal role in the evolution of smart logistics. This cloud-based warehouse management solution optimizes inventory, streamlines workflows, and enhances visibility with features like configurable workflows and multiple subscription models. It benefits various industries by

improving resource utilization and reducing inventory costs.

With a robust suite of offerings, NEC is poised to not only revolutionize smart city solutions in India but also make a significant impact on a global scale, reinforcing the brand’s commitment to orchestrating a brighter world through innovative technology and strategic integration.

LOGITECH INTRODUCES MX BRIO FOR WORKING AND STREAMING

Logitech unveiled MX Brio/MX Brio 705 for Business, a revolutionary high-end webcam for end users and enterprises, designed to meet the demanding needs of advanced users. MX Brio is Logitech's most advanced webcam yet and joins the Master Series ecosystem alongside MX keyboards and mice to deliver outstanding performance and streaming experiences, while fostering quality collaboration. The Ultra HD 4K webcam



MX Brio/MX Brio 705

helps creative professionals and developers elevate their virtual presence and efficiently share results and ideas.

"We know that MX users collaborate and communicate from many different environments and need a versatile webcam offering the best video and sound quality," said

Anatoliy Polyanker, General Manager of the MX Business at Logitech. "MX Brio is our highest quality webcam, featuring customization and the ability to show themselves or their work in the best possible way."

MX Brio's Ultra HD 4K resolution and advanced webcam sensor demonstrates Logitech's continuous innovation with 70 percent larger pixels than the Brio 4K, our previous flagship webcam, offering an ultra-sharp image. AI-enhanced image quality takes auto light correction further with face-based image enhancement that provides a more natural image, and video with 2x better face visibility and 2x finer image details in difficult lighting conditions compared to Brio 4K.



Advanced customization options allow users to fine-tune their appearance by manually adjusting exposure, tint, vibrance, field of view and more using Logi Options+, Logi Tune, and G HUB software. Show Mode makes it easy for users to

share sketches or other physical objects on their desks by simply tilting the webcam. MX Brio also has two beamforming

mics to reduce background noise so you can be heard clearly and an integrated privacy shutter. RightSight autoframing feature, which detects and centers on the speaker even as they move around, can be enabled through Logi Tune for enterprise customers with MX Brio 705.

For IT teams outfitting employee workstations and home offices, MX Brio 705 for Business, the plug-and-play enterprise model, is compatible with most video conferencing platforms, and is certified for Microsoft Teams, Google Meet, and Zoom, and works with Chromebook. Additionally, IT admins can update firmware and troubleshoot problems for their hybrid teams securely via web-based device management platform Logitech Sync.

Approach to Sustainability

MX Brio aligns with Logitech's goal to create product experiences that improve people's lives. This means considering environmental and social impacts as part of every design decision. The webcam is certified carbon neutral, like the rest of Logitech's products, and the paper packaging comes from FSC-certified forests and other controlled sources. The plastic parts in MX Brio include certified post-consumer recycled plastic to give a second life to end-of-use plastic from old consumer electronics – 82% for Graphite and 75% for Pale Grey.

CRESTRON EXPANDS AUDIO-OVER-IP... *Continued from page 27*

hear that audio everywhere. This compact device offers a range of features that make it incredibly versatile and user-friendly. With a stereo USB-C connectivity PC audio input, you can easily connect a laptop and enjoy high-quality audio streaming. The device also features a stereo analog 3.5mm line in/out,

allowing easy integration with your local audio system.

With the flexibility, scalability, and interoperability of the Crestron DM NAX platform, homeowners can enjoy the ultimate audio experience in every room of the home. DM NAX edge products provide integrated streaming, routing, and

distribution, combined with audiophile-quality speakers, amps, and complete control of all media and content in a Crestron system. Customers can control them easily through any device including keypads, remotes, and touchscreens, or via seamless integration in the Crestron Home OS on mobile devices.

AV-ICN Expo Magazine's upcoming issue (May-June 2024) is The Show Issue.
Inviting all the recent launches from the AV industry for consideration.

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

ERTHPOT SET TO REVEAL ERTHPOT ANTENA AT PALM & AV-ICN EXPO 2024

Erthpot, dedicated to bringing state-of-the-art audio-visual products, is set to launch its game-changer technology at the **PALM & AV-ICN Expo 2024**, which will be held from May 30 – June 1st. The products will include **AD4S**, **AD49-W**, and **AD21** that can widely be used in convention centers, auditoriums, stadiums, or even live stages.

As an indigenous Make in India initiative, Erthpot aims to transcend geographical boundaries and become a beacon of technological prowess, showcasing India's capabilities on the global stage. Erthpot plans to expand its presence by focusing on product differentiation, understanding the market landscape, forging strategic partnerships with industry stakeholders, putting strong emphasis on customer satisfaction, allocating resources towards research and development, and expanding internationally. Erthpot aims to position itself as one of the leaders in the audio technology and video conferencing industry, driving growth and innovation in the years to come.

AD4S

The AD4S by Erthpot revolutionizes wireless microphone setups with its four-way active high-performance antenna distribution system. This innovative solution simplifies signal distribution from a single pair of antennas to multiple receivers, effectively reducing signal dropouts caused by interference. With the AD4S, users can share one pair of diversity antennas with up to four Arche Wireless receivers (Single or Dual), ensuring seamless audio transmission. Notably, the AD4S features four internal power supplies, each providing a consistent 12V/800mA power to all con-



The combination of Erthpot's AD4S Active Antenna Distribution System, AD49-W Active Wide Band Directional Antenna, and AD21 Antenna Splitter/Combiner presents a formidable trio poised to revolutionize the AV market

nected receivers, enhancing system reliability. Additionally, its wide band frequency range ensures stable RF signal reliability, while the RF Signal Output Gain compensates for insertion loss. Bundled with all necessary RF and power cables, the full metal housing unit with a matte paint finish ensures durability and longevity.

AD49-W

The AD49-W is a versatile wide band directional antenna (470 - 900 MHz), engineered for professional wireless microphone systems. Featuring an in-built RF amplifier, it offers a signal gain of up to 13 dB, ideal for compensating for long cable runs. Its unique design includes midrib and side vein receptors, enhancing polarization to achieve cardioid pick-up coverage with 6dBi gain. Whether fixed to a microphone stand, suspended from the ceiling, or mounted on a wall using the

integrated rotatable stand, the AD49-W offers flexibility in installation. Constructed with a lightweight metal structure, it ensures durability for both indoor and outdoor use, making it a reliable choice for various working conditions.

AD21

The AD21 from Erthpot is a versatile two-way passive antenna splitter/combiner designed for use with Arche Wireless Systems. This compact device offers the flexibility to split an incoming signal into two outgoing signals or combine two incoming signals into one, enhancing signal strength and providing greater coverage options. With wideband frequency support across the

entire UHF range and compatibility with all 50-ohm Coaxial RF Cables, the AD21 empowers users to expand coverage and ensure signal stability with ease.

Conclusion

In summary, Erthpot's suite of audio technologies, including the AD4S Active Antenna Distribution System, AD49-W Active Wide Band Directional Antenna, and AD21 Antenna Splitter/Combiner, collectively represent a game-changing solution for the AV market. With their innovative features, robust construction, and seamless integration capabilities, these products are poised to redefine audio transmission and signal management, setting new standards of excellence for AV professionals worldwide. Erthpot's vision is to be a trailblazer in the realm of audio technologies and video conferencing solutions, synonymous with excellence, reliability, and inclusivity.

To advertise your brand in AV-ICN Expo Magazine,
contact Vartika Singh at vartika.singh@hyve.group

PRODUCT LAUNCHES AND PARTNERSHIP DEFINE NEW ERA OF UNIFIED AV DISTRIBUTION AND CONNECTIVITY AT KRAMER

Kramer's Expanded Series 3

Kramer, one of the leading audio-visual experiences company, announced the expansion of its innovative Series 3 product line, setting a new standard in the AV signal management domain. Series 3 shows Kramer's commitment to providing end-to-end solutions that are fully interoperable and connected, offering unprecedented

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. With Series 3, Kramer not only sets a new standard in AV signal

Switchers: Our multi-format Series 3 Switchers optimize connectivity for presentations, live events, or home entertainment, providing versatile switching between different sources for a top-tier user experience.

Extenders: Series 3 Extenders take audio, visual, and control signals further while preserving their full quality and strength, ensuring flawless signal delivery across diverse environments.

Distribution Amplifiers: These high-performance amplifiers ensure that audio and video content reach every screen, speaker, and device in your network with high precision and clarity.

Video Processors: Streamline the deployment of multi-view displays and videowalls with cost-effective Series 3 Video Processors, reducing the need for multiple units and complex network infrastructures.



Series 3 provides full coverage of all AV connectivity protocols, offering compatibility with a wide range of signal management products

simplicity, flexibility, and scalability in AV integration.

High-Performance AV, Unified Distribution, and Comprehensive Connectivity with Series 3

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 features like fast switching, single-cable extension, and USB-C interfaces. Designed to support the most advanced collaboration devices and demanding use cases, Series 3 ensures top-notch AV signal processing in any setting.

This innovation extends beyond individual products to include a comprehensive approach to AV distribution. Our series-based strategy simplifies the design, configuration, and secure management of complete AV solutions. Series 3 integrates multiple product lines, forming a unified foundation for any deployment scenario, ensuring a singular, seamless user experience.

management but also ensures solutions that are adaptable and future-ready, meeting the evolving needs of technology and users.

"With Series 3, we are not just launching a product line, but we are redefining the AV signal management approach. This series is a testament to Kramer's commitment to continual innovation. As we look ahead, we are excited to keep expanding our offerings, adding more products and solutions to this domain. Our goal is to empower our customers with simplicity, flexibility, and efficiency, ensuring they stay ahead in a rapidly evolving digital world," says **Yishai Mescheloff**, VP AVSM and Connect.

Product Highlights:

Matrixes: Modular, Fixed, and All-in-One Matrixes form the core of modern AV systems, offering versatility in professional AV installations. They address all aspects of high-performance signal distribution, switching, processing, including scaling, audio mixing, and integrated control interfaces for remote management.

Kramer and AudioCodes Partner to Deliver Complete Solution for Microsoft Teams Rooms (MTR)

Kramer announced a new partnership with AudioCodes to deliver complete Microsoft Teams Room (MTR) solutions. This collaboration is set to redefine the meeting experience, and AV-enabled hybrid work environments, offering a comprehensive approach to modern collaboration needs.

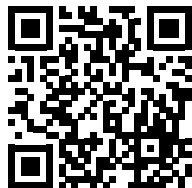
This strategic partnership integrates Kramer's innovative audiovisual solutions with AudioCodes' Microsoft Teams Room products. The partnership encompasses a full range of components, from video bars and compute units to speakers, DSPs, switching, efficient cable management, plus AI recording and analytics for Teams meetings, ensuring a seamless and comprehensive meeting room experience that delivers more productive meeting outcomes.

Transforming hybrid work and meeting environments, this collaboration aims to provide end-to-end solutions from small

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AV-ICN EXPO

INDIAN PRO AV MOMENTUM



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EXTRON ADDS AUTOMATED DISPLAY POWER CONTROL FOR ANY SIZE WORKSPACE

Extron introduced the WC Pro 150 OCS and WC Pro 160 Workspace Automation Controllers. These are designed to add easy, secure display control, and automation to workspaces of all sizes. Depending on the model chosen by the users, they can have automatic display control via an occupancy

turn it off at the end of the meeting when no motion is detected. Using the built-in web page, users can configure automatic display control over Ethernet, RS-232, or IR. For added convenience, both models support Power over Ethernet.

"Our WC Pro Series is another way Ex-

Users can add a LinkLicense for WC Pro Control Processor and expand control capabilities to multiple displays and devices. This will also provide access to the full line of TouchLink Pro touchpanels and Network Button Panels to support projects that require a user interface. Once LinkLi-



WC Pro 150 OCS and WC Pro 160 Workspace Automation Controllers by Extron

sensor – either built right into the workspace controller, or easily integrated as part of a streamlined room automation system. Right out of the box, these automation controllers will automatically power on a display via CEC when a person enters a room and

tron is adding the benefits of automation to today's workspaces," says **Casey Hall**, Chief Marketing Officer for Extron. "These compact, integration-friendly controllers are perfect for any space where you'd like convenient display power control."

license for WC Pro Control Processor has been applied, then LinkLicense for User Interfaces can also be applied. This LinkLicense provides an easy way for people to use their mobile devices or computers as primary control interfaces.

KRAMER AND AUDIOCODES PARTNER TO DELIVER...

Continued from page 30

huddle rooms to expansive, fully equipped boardrooms. The synergy between AudioCodes' expertise in MTR-certified products and AI-powered voice applications, plus Kramer's proficiency in the audio visual field is expected to elevate user experiences in hybrid work settings.

For systems integrators, this partnership offers significant value. They receive a fully tested room solution where all components are guaranteed to work in harmony, along with ready-made plans and schematics for the entire installation. This approach significantly reduces adjustment times and labor costs, resulting in considerable savings and allowing system integrators to offer more competitive solutions to their customers.



Kramer and AudioCodes, with this partnership, are poised to set new industry standards, driving the evolution of meeting spaces and collaborative environments with cutting-edge products

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

NEUTRIK

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Panel Discussion on Top Display Trends in 2023

Focusing on flexible displays, immersive displays, digital signage, micro-LEDs, LCDs, projection technologies, OLEDs, quantum dots, and laser-based displays

*In this conference session, the panellists give an overview of the emerging market for latest technology in display. The panellists, **Anil Chopra**, Founding Director, AV-ICN Expo, **Aman Singh**, Zonal Head, North & West India, **Optoma**, **Rohit AK**, Head of Corporate Business, **Maxhub**, (as of 2023, during the expo) visualize demand of new applications for innovative displays featuring the latest technology. Furthermore, panellists try to understand the display market of India and share a statistical approach during the discussion.*

Addressing the display trends, **Anil Chopra** begins by sharing the AV-ICN motive that stands true every year. He says, "The theme for AV-ICN was projection and digital signage. In AV-ICN – Integration, Communication & Networking. I will direct my question to both the panellists – What, according to you, if we draw a pie chart, will be the percentage of consumption of out-of-home displays and what do you feel about the market?" To this, **Aman Singh** replies, "As the population is growing, our display areas are also reducing. With static content like the hoardings, there is only a limited information for the customers. However, displays

allow customers to reduce the monotonous feels about the advertisements. And yes, advertisement would surely be a major segment for displays in the AV industry and will continue to strive for large-scale projects in India.” He adds, “Total display market as per the commercial display market is comparatively lesser because consumerism in India is pretty high because of the population. Yet, the segment takes up nearly 30% of the Indian display market.”

With the viewpoint to analyse the display market and dig deeper on the market charts, Anil Chopra puts forward a question about which segment covers the largest pie chart for displays in the country. Aman Singh, based on his dedicated experience in the industry, responds, “Commercial segment is the biggest market in India as of now. This includes the large TV displays along with projectors as that market is also catching up like laser TVs, projection TVs, and more. Customers are now understanding the difference between laser and lamp projectors. Considering these key aspects, we can say that the total display market has reached nearly 70-80% in India.”

Anil Chopra further interrogates, “If we have to divide the charts under different segments of commercial like boardrooms, infrastructure, airports, etc. and residential separately, how could we go about it?” To which Aman Singh replies, “In displays, it primarily depends on the size. For consumers, the maximum LED size will be about 75” that would cost around 4-5 lakhs only. The moment we go beyond 75” displays, LEDs step into the commercial segment and the biggest sectors to use these LEDs, from my point of view, would be advertisement and education. Considering education sector within the commercial market, it takes over more than 40-50% on the charts.”

Analysing display market in India

Anil Chopra further continues the discussion with Rohit AK, as Maxhub claims to have 103% of all the patents in displays. He inquires, “Based on the current discussion, we can see that OOH is not so exciting but education and residential sectors are taking over the market greatly. So, the display market in India is quite robust in all segments. What would you say about the applications and the technology market that applies in the display and how is that determining the applications and market size?”

Putting forward his knowledge about the display market and every segment of the AV industry, Rohit AK answers, “I would like

to categorize these displays. It is actually very difficult to look at it as a broad market because this segment is segmented into very specific use cases. Now since, we are talking about the education segment, from KG to PG classrooms, everybody is highly dependent on multimedia content, which gives students the best clarity and experiences and therefore, LED displays are the best to surface such content. What makes it even better, is the interactivity factor. With the onset of all the new technologies and with respect to AI, distance education, or hybrid learning, Covid-19 has played a part as the catalyst taking this to the next level. Some of the end users who were reluctant to adopt this technology due to their own limitations, are now using it as necessity and not a luxury due to the pandemic. However, in terms of the market segment, I guess we are not even scratching at the surface even since the previous years.” He adds, “India is just getting started. We have a lot of technologies to bring into this particular space. We are working on certain technologies in the R&D centres, which will revolutionize the space in a very short time like AI, gesture technologies, the simple touch technologies, IR, or capacitive touch technologies. The price point of interactive touch screens is still very high in India for small corporate offices.” However, Singh argues, “Because of the pandemic, the volume grew up and the prices crashed in the last three years. Interactive flat panels have come down to as less as TVs. In my opinion, when we talk about displays and leave education out of it, that is very everybody gets enticed because bigger the screen, bigger the experience. We can captivate more audience now. When we talk about the ROI, the profitable market is with bigger screen sizes like 75” or 86”; that is where the interactive flat panels have cushioned themselves. To sum it up, large panels of 75” and above are much more fast selling and profitable as compared to the smaller ones.”

Education market matrix

Anil Chopra kicks off another market chart discussion with Rohit AK about the display screens demand in the education sector and the market figures. Rohit AK mentions, “Currently interactive flat panels in India are somewhere between 50,000-70,000 on average which is nothing in terms of a country with a population of almost billion and a half. This technology is still on the pricier side of the market, according to me, and will come down gradually with the

increase in volume. Just like the demand for commercial televisions 10 years ago, and today, see where the market has reached. So, there is a sea of changes in the price game. With Covid-19 acting as a catalyst, even a Tier-3 city customer today, knows about such technologies existing in the market and wants to adopt it. Institutes, colleges, or even schools are optimising on the abundance of available internet as we moved from 3G to 4G in 10 years and from 4G to 5G in less than a year or so. With the availability of the bandwidth and top-notch collaboration solutions today, teaching has become easier, and displays are the platforms that are being used to take this to the world.” Rohit AK further shares examples from India where students can seamlessly interact with the teachers around the country and excel.

Anil Chopra further interrogates on what would be the total value of display market in the education sector in India. To which, Aman Singh replies, “If we talk about the interactive flat panels and projection together, orders totalling 3.5 to 3.75 lakhs were placed in India last year.”

Retail market matrix

Keeping every major segment in mind, Anil Chopra points out the use of displays in the retail segment and questions, “In retail, we see a lot of retail applications inspired by AI for the customers but in real world, I guess 99.9% of the displays are static. What would you comment on the technologies being used in the retail sector and the emerging solutions in the future?”

Rohit AK responds, “Retail market is also categorized into indoor and outdoor displays. There are a lot of companies that are inventing on AI front and are coming up with smart bearers. Similarly, displays are also being used in these kinds of technologies where the brands try to take it beyond just a signage solution. The brands want to make it interactive for the users. Some of the displays are coming up with in-built cameras also to have multiple options available at the click of the button. The cameras can be used for multiple features like testing out multiple clothes at a retail store. It will create a wow factor for the end users and reduce the inventory management for the retail chains.” Aman Singh adds, “At retail, displays are also categorized based on the sizes of the screens; it can be an active LED, OLED, QLED, or projection. Based on the technologies sufficed to the Indian market, we might say that there are one to two lakhs odd panels for activities. However, we can’t quote the

figures accurately as the segment is huge and are sub-categorised within the active LEDs segment too."

New technologies soon to emerge in the LED market

Continuing the conversation about the technology trends, Anil Chopra asks Rohit AK, "Where do you see the market going in terms of applications and the technologies that will soon create a wave in the market?" He replies, "From the potential point of view, for outdoor LEDs, with the influx of so many LEDs present in the market, the cost of LEDs is also crashing drastically and therefore, there is no real use case of reducing the pixel smaller than a 2.5 but with respect to the indoor LED displays, we are already at a point where 0.8 is literally negligible, that's as good as a TV. Moreover, we are getting queries from the customers as well that they want to explore the options for transparent LEDs, etc. There are certain customers in B2B segment also, where they want to see how glass walls can be replaced with LEDs for two-way application with affordability." To this, Aman Singh adds, "The biggest disadvantage of outdoor LEDs is the sunlight as that cancel outs the brightness of the displays. Therefore, flex is

the possible option for outdoors. According to me, if you draw per square inch screen size, projection is the cheapest and then comes the active LEDs, QLEDs, micro dots, and lastly the LCD displays."

The conversation spikes audience's interest on how outdoor LEDs and indoor LEDs are setting the standards in the Indian LED market and how, regardless of the challenges that come with the outdoor LEDs, new technologies are gearing up to reach out to the masses. For instance, outdoor cinemas or e-cinemas are emerging to showcase thrilling content, which the panellists discuss in detail during the session.

Is it the sunset for LCDs?

Connecting the LCDs v/s the LEDs market, Rohit AK remarks during the session, "LCDs are not winding up in the market right now but definitely, it's the time for LED displays from the durability point of view. Basically, on an average when every equipment is getting obsolete in three to four years, 10 years is double the amount of time that the LEDs will be durable. Therefore, durability of the product is what is making the product much more affordable. Even when the initial capex is high, the overall ROI of

the purchase adds up to the duration of its lifespan and therefore, end users are adapting LEDs more."

Market estimations from the conclusions

The panellists further discuss on the technical side of the market and analyse the maximum market size for various applications including retail, education, OOH, etc. The discussion brings forward the critical pie chart, a market estimation, and the maximum return from the manufacturer's perspective. Rohit AK shares, "From a manufacturer's perspective, education is going to have the biggest ROI in the future including private or public."

Aman Singh adds, "When we talk about large screen sizes, projection will always stay on the top because the life of the laser projectors is 30,000 hours, which is as good as the LEDs."

Q&A session with the audience further adds to the interesting conversations during the concluding minutes. Audience's approach towards understanding more about the display advertising market made the session much more interactive and engaging throughout.

A Panel Discussion on Sound in Visual Design... *Continued from page 15*

top of it. If you run these directly, you will get phenomenal solutions, but we do have amplifications with DSP curves, not only for the product point of view but for the room environment as well. We do a lot of high-end stores requiring acoustic environment, therefore, the solutions we provide are not only for the different room settings from acoustic to live rooms to enhance the product in that setting."

Design touch for aesthetic sound spaces

Govindhan interrogates on the technology where you can actually make the speakers go away from the physical space with a completely different acoustic space. Ickeringill throws light on the same, stating, "We acquired a company two years ago that focused on a solution called 'small aperture,' which is in a complete enclosure. Then we have a mid-range array that ports around the edge with the base, so actually what we have got is 3 or 4 inches round or square grill that can be blended in the light fittings. We provide CAD files so that with the wood

panelling, users can see the solution and that becomes the grill. Therefore, we started to get involved at a very early stage with the design community to understand and ensure the invisibility of the speakers."

The panellists further continue the discussion towards catering to challenging aesthetic spaces, for instance, high-end luxury retail stores with bespoke spaces. To this, Jacob adds, "We had to place the speakers in the most subtle way to keep the space aesthetically pleasing and to ensure the delivery of such spaces exceptionally, we spray paint them or cover them inside the ceiling."

Prashant Govindhan continues the discussion further saying, "10-15 years back, I came around a concept called 'Whispering Windows' in UK. It's a very interesting concept when it comes to transducers and materials. The company would fix strong transducers on four corners of the glass windows that go inside the frame, and as you walk past it, it would talk to you. It adds to the novelty." Adrian Ickeringill continues, "We work with some of the high-end integrators around the world, like recently, we went to Madrid and

saw a showroom where there was so much interactivity with the client coming into the store. For these places, consumer engagement is very important. We, as the system providers, with our invisible speakers, try to provide great frequency coverage and high level of SPL. Another aspect they like about our speaker design is that we bring in a 170° dispersion while general speakers provide 120° at best. So, extra coverage gives our team more flexibility and capabilities in setting the speakers in the designed spaces. Also, our speakers come with 15 years of warranty for customers to experience the comfort."

With more clarity on the audio installation and design in the aesthetic spaces, panellists continue to discuss more on the AV front like the mounting depth of the speaker, ceiling speakers, R&D that comes with in-house development, and so much more during the session. Furthermore, the panel also allows the audience to interact with a set of questions they might have about the flat panel technology, incorporating Sonance and James speakers with loudspeaker/DSP presets, and more.

These are the excerpts of panel discussions from PALM AV-ICN Expo 2023.
Readers can view the full conference session on PALM Expo India's Youtube Channel.

ADVENT OF INNOVATIONAL DISPLAY TECHNOLOGIES FULFILS AV-ICN EXPO 2024

Explosion in OOH(Out-of-Home) LED market fuels adoption of latest display technologies

Massive adoption of LED displays by OOH advertising, retail, and hospitality in digital signage has increased the distributor strength in the AV industry. Import and inventory is high on account of runaway growth in consumption.

Exponential growth in display in India exploiting new technologies

"Display environment in India is maturing rapidly. Interactive displays offered by many companies today serving the education market and entry level corporate market. Newer solutions like self-adhesive transparent LED displays and very large touch screen video walls as also inventive displays in residential AV is advancing the display landscape in India," says **Anil Chopra**, Founding Director, AV-ICN Expo. "Evidently the display market becomes more challenging and surely the display market will be served by high quality and fulfilling standard specs. This means there is a huge potential in India in the display sector for the new companies," envisions Anil Chopra.

"AV-ICN 2024 will attract a large number of systems integrators attending the show for solutions in display for almost all applications. Education by far is a major sector with innumerable government tenders for massive deployment of AV classrooms. Government education tenders are for 30,000 – 50,000 classrooms. In retail, major brands storefronts to the smallest retailer shop have digital signage. Hospitality sector which per se is in extremely high

AV-ICN EXPO



L to R: Anil Chopra, Founding Director, AV-ICN Expo, Narendra Naidu, Managing Director, Rhino Engineers, Kelvin Ashby King, Principal Consultant. Clarity Consulting, Ramesh Chetwani, Project Director, AV-ICN Expo, Gaurav Sood, General Manager, Hyve India at the PALM & AV-ICN Expo 2023

growth uses digital signage. With the array of metros and airports and upgradation of all railway platforms, display signage in infrastructure is witnessing growth like never before," mentions Anil Chopra. He adds, "The manpower and talent need of the AV industry in India are increasing and probably attracting top talent from the IT industry. AV and IT are integrating for all communications of audio and video on broadband. With the deployment of 5G the corporate conferencing is enlarging."

"We are building the show in response to the market demand in display and digital signage. The show this year will satisfy all attendees, professionals from the AV industry as well as AV consultants and systems integrators looking for solutions," says **Ramesh Chetwani**, Project Director, AV-ICN Expo.

The upcoming AV-ICN Expo at the NESCO Centre, Mumbai will have an edition of CAVS with top-level faculty and well-researched curriculum. Leading AV industry management and technology leadership will be the speakers and the panellists at the fifth AV-ICN Conference. The conference is held in AV-ICN hall. The

conference topics will cover disruptive display technologies, digital classroom technologies, holographic displays, AR/VR for 3D experiential retail and office space design. A panel discussion on **Pro AV Project Market - Challenges and Op-**

"AV-ICN 2024 will attract a large number of systems integrators attending the show for solutions in display for almost all applications. Education by far is a major sector with innumerable government tenders for massive deployment of AV classrooms."

portunities is also scheduled for AV-ICN. The CAVS classroom is also held in the AV-ICN hall. The conversions of the AV industry at AV-ICN Expo of AV consultants, systems integrators, distributors, and management of top brands will indeed be an excellent networking opportunity. AV-ICN is concurrent with the PALM Expo with 205 exhibitors combined. Pro audio solutions for sound install for auditoriums and entertainment, integrated PA install, AV rental, are exhibited at the PALM Expo, which is connected with the AV-ICN hall.

The 2024 Expo will be held from **30 May – 1 June 2024** at the Bombay Exhibition Centre (BEC), Mumbai. AV-ICN Expo, this year, is all set to unveil latest technologies and AV solutions from leading brands and distributors in the industry. Attendees will get to experience a wide range of AV solutions from a spectrum of categories including cables and connectors, LED displays, LED lights, projectors, switchers, and processors. This AV-ICN feature brings significant insights from the show floor with new launches prepared to be introduced by different exhibitors during the show.

Cables and Connectors

As one of the most commonly used components in any industry, cables and connectors allow devices to transmit both audio and video signals through copper or aluminium wires. Cables and connectors ease the process of networking. AV solutions like switchers and processors require cables and connectors to connect with the

USB dongle and one remote control that covers the distance of up to 200-300 Meters, and **HDMI 2.1 Multi Core AOC Cable 4 in 4 Out**, designed for LED screens operations and detachable connectors with rox-tone PCD series wire roulette. Furthermore, **HF4K@60Hz's** (HDMI 2.0 to Fiber Extender 4K@60Hz) best feature is that it supports 3840x2160@60Hz with UHD 4:4:4 sampling rate, and users can extract the audio sepa-

year, by bringing leading brands to exhibit their latest display solutions at the show floor. Many leading manufacturers and distributors will showcase their products and solutions at the AV-ICN Expo 2024 including Acton Pixel, Atenti LED Display India, DI Impex, G H Starled Display, Hawaii Sign & LLP, Infonics Technologies, Newtech Video Systems, NVS, PeopleLink, Pixel LED, Sepl Visual Solutions, Sunrise LED Tech,



AV Master Technology will attract AV-ICN Expo's visitors with the launch of SuperCue Quad, SuperCue Mini, HDMI 2.1 Multi Core AOC Cable 4 in 4 Out, HF4K@60Hz, AF Extender, AV Master Fiber Cable, HDMI 2.0 Matrix 8 in 8 Out, and 8K@60Hz – HDMI 2.1 Armour AOC Cable

systems to function effectively. Some of the exhibitors at the show floor to exhibit cables, connectors, and extenders will include **Mindstec Distribution, DC Infotech and Communication, and Nteck Systems.**

Inspired by the innovational changes, **AV Master Technology** will mark its presence by introducing its latest launches during the show. These products will include **SuperCue Quad**, which is the intelligent PPT Clicker for many segments and can connect and cascade up to 4 laptops (2 with Type C + 2 with USB Ports) with remote control covering the distance of up to 200-300 Meters, **SuperCue Mini** for one laptop where PPT Slide Changer comes with one

rely, which will also be launched at the show floor. The **AF Extender (XLR Audio to Fiber Extender – 4 Channel and 8 Channel)** by AV Master Technology will also be unveiled at the expo, a bidirectional Audio XLR to Fiber extenders. It is a very vital product for the audio-visual companies (Rental and Fixed) when it comes to transmitting the audio to the fiber over a long distance. **AV Master's Fiber Cable** is a single and multi-mode optical fiber cable finished product that can reach up to 2000 meters while maintaining a 10 GBPS bandwidth. Mindstec is also going to introduce **HDMI 2.0 Matrix 8 in 8 Out** that supports seamless switching, and a resolution of 3840 x 2160@60Hz with a sampling rate 4:4:4 and **8K@60Hz – HDMI 2.1 Armour AOC Cable** that is an armour, and is included with protective caps, operating at 48 GBPS as a highly stable and effective solution.

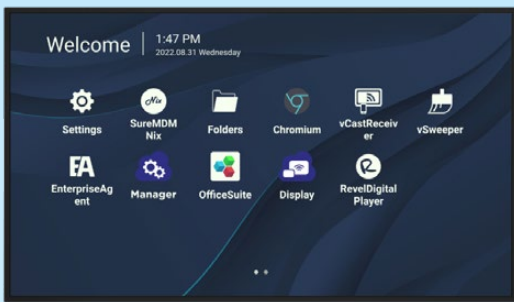
LED Displays

LED displays or video walls are high energy efficient technologies that allow bright content presentation to the viewers. AV-ICN ensures the delivery of cutting-edge technologies at the expo again this

Tentech LED Display, Vishwanhali Technology, and Zuper LED Media. Moreover, distributors like Mindstec Distribution are set to bring best-in-class technologies at the AV-ICN Expo like real-time graphics and live production solutions by **Vizrt**; video conference camera by **Telycam**; collaboration solutions by **Avocor, MTC, and T1V**; secure engagement technologies by **Uniguest**; videowall systems, scalable graphics, and video capture technologies by **Datapath**; video wall management by **Polywall**, and HDMI solutions by **Blustream and Kordz**. Adding to the innovations in the AV industry, **AET LED Displays, Elite**



AET LED Display's QV Series, launching at AV-ICN Expo 2024 is designed to provide high-definition visuals with extreme creativity and multi-protection



ViewSonic's CDE9830 for wireless presentation and enhanced efficiency

Screens, ViewSonic, and R J Enterprises are set to launch new LED Display solutions at the show floor.

AET LED Displays will launch its indoor creative rental solutions, the **QV Series**, which comes with a 10-degrees curve. Key features of the model will include unique module chassis assembly process and flatness between modules $\leq 0.1\text{mm}$, slim and lightweight design, single cabinet weight within 7kg, efficient for XR application.

ViewSonic will launch its **CDE9830** for wireless presentation for enhanced efficiency with single USB-C cable for 65W power delivery, 24/7 video playback for



Platinum Series by Jona LED

continuous communication, remote device management with myViewBoard Manager and portrait-oriented display for impactful brand signage. Furthermore, **Jona LED Platinum Plus Series** will be launched at the expo offering full front or rear maintenance of electronics and magnetically attached cabinets that can be handled by



Norah Series by Jona LED



XR COB series by Jona LED

one person and with an extra signal backup port and is ideal for outdoor events, wedding events, etc. The latest 5th generation **Jona LED Norah Indoor Series LED** video wall displays are set to revolutionize corporate events viewing experience. It comes in 500mm x 500mm size with three-layer waterproofing, is easy to assemble and makes a good screen resolution, which is ideal for corporate events and meetings or running PPTs. **Jona LED's** premium line of **XR COB series** tiny LED displays will be seen captivating senses with an immense experience. Driven by micro technology, these very thin pixel pitch screens mesmerize audiences with vivid HDR10 picture quality, up to 16K resolution, and a high contrast ratio of 15000:1.

LED Lights

Perfect lighting is the first step to enjoy visual excellence at par. LED lights at live events, large-scale venues, or even meeting rooms, offer a variety of ambient feels with different lighting technologies. Users can now choose visually aesthetic appeals through LED lights based on their themed requirements. Some exhibitors include **Global LED**, **Leksa Lighting**, **Nikita Distributors**, and **Apna Studio** who will exhibit their lighting solutions at the AV-ICN Expo. **Canara Lighting** will be unveiling the **Canara LED Octagonal Panel Light** at the AV-ICN Expo 2024. Some of its key



Canara LED Octagonal Panel Light

features include - integrated dimmer that enables instant dimming from 0 to 100%, high grade aluminium housing with black powder coated mat finish paint, brightness controlled through DMX mode and manual mode, and temperature of the lighting fixture, which is controlled by passive cooling heatsink system that comes with 2 mtr power and DMX cable.

Projectors

With vigorous transformations occurring every day in the digitally evolving world, projector market in India has grown tremendously. The technology caters to optimal visual experience for users requiring seamless viewing and large screen projections. Corporate sector, auditoriums, lecture halls, large conference rooms, and even houses of worship demand advanced projectors for large venues and therefore, AV-ICN comes forward with the



Kestrel Tab-Tension 2 CLR

leading projector brands during the expo, catering to the Indian market. Some of the exhibitors at the 2024 show floor to exhibit projectors will include **Epson India** and **ViewSonic**. **Elite Screens** is also set to unveil its latest innovation at the expo floor. The **Kestrel Tab-Tension 2 CLR**, to be launched during the show, is an electric floor-rising projector screen with ceiling light rejecting technology to combat the washout effect from overhead lighting in bright room environments.

Switchers and Processors

Built for communication and networking applications, processors provide high-quality signal processing. Processors cater to enhanced performance and power efficiency in the embedded systems. Switchers, on the other hand, allow users to switch between different hosts and manage connections for the best-in-class video quality collaboration. To find the right devices for users' collaboration experiences, AV-ICN Expo brings multiple exhibitors on the show floor to exhibit cutting-edge technologies from the AV

industry. Some of the exhibitors at the show floor to exhibit switchers and processors will include **DC Infotech And Communication Ltd, Kramer, Nteck Systems, R J Enterprises, and Rzone Pixel.**

Just like all other AV Master Technology's products as listed under the 'Cables and Connectors' category, it will also unveil its **P10 & P20 Switcher/Splicer** at the show floor under the switchers and processors category. The **SMP40 & 60 series** supports wireless screen mirroring from Windows, macOS, iOS and Android terminals. For a standard 1080p video, the mirroring transmission is at up to 60 fps with a system latency of less than or equal to 80 ms at 8 meters. For different application scenarios, it provides 4 modes to let the document presentation, video playback and remote meetings have the optimal display effect.



SMP40 & 60 series by NovaStar

The SMP series has no requirements of redesigning or changing the screen structure and can be hung on the wall or placed on a surface, allowing for quick environment setup and use. It can be widely used in corporate exhibition halls, government and corporate educational halls, hotel lobbies, telemedicine consultation and other LED single-screen application scenarios. Moreover, **H series by NovaStar** will also attract the audience at the show floor for the first time. The H Series is NovaStar's flagship all-in-one video splicing processor, designed specifically for fine-pitch LED applications. It is the first all-in-one splicer and controller

in the industry, which greatly simplifies systems integration. With the leading image processing technology in the industry, H series can give you an astonishing visual effect, truly making it the perfect solution for fine-pitch LED applications. H5 offers a modular plug-in design, with a variety of connector modules available.

It comes with the control card and power supply. A minimum of 1



H series by NovaStar

additional input card, and 1 output card is required for full functionality.

Comcon Technologies will also unveil **Optocore's FESTIVAL BOX** at the expo. FESTIVAL BOX is the main hub unit for a wide range of professional audio devices, with MADI inputs and outputs such as digital consoles, DAW, playback devices and professional broadcast units, IP protocols, Optocore or any fiber-based audio system.

AV-ICN Expo 2024 promises to offer a technological revelation in the pro AV industry, providing exhibitors and actual trade users a grand platform to connect, network, and showcase the best from the market. AV-ICN Expo is set to return from **29 – 31 May 2025** at BEC, Mumbai, India.

**This information is accurate at the time of going to the press.*

AV-ICN EXHIBITORS LIST 2024

Company Name	Hall No	Stall No.
Absen-Sepl Visual Solutions	Hall 2	F18
Acton Pixel	Hall 2	F17
AET LED Displays India	Hall 2	C41
Apna LED	Hall 2	B73/B71
Atenti LED Display India Pvt Ltd	Hall 2	D17
Audio Logic	Hall 2	C63
AV Master Technology Co	Hall 2	C64
Canara Lighting Industries Pvt Ltd	Hall 2	B27
DI Impex	Hall 2	B33
Elite Screens	Hall 2	A71
Enbon LED- Transwag 24	Hall 2	C27
Epson India Pvt Ltd	Hall 2	A01
G H Starled Display	Hall 2	C18
Global Communication.Com	Hall 2	F01
Hawaii Sign & LLP	Hall 2	B09
Infonics Technologies	Hall 2	C17
Jona LED	Hall 2	C32
Kramer - DC Infotech And Communication Ltd	Hall 2	E01
Leksa Lighting Technologies Pvt Ltd	Hall 2	D41
Lumina Display Systems Pvt Ltd	Hall 2	B17
Mindstec Distribution Pvt Ltd	Hall 2	B51
Maven Enterprises	Hall 2	B18
Newtech Video Systems Pvt Ltd	Hall 2	D33

Company Name	Hall No	Stall No.
Nikita Distributors - Godox	Hall 2	C51
Nteck Systems	Hall 2	B34
Optoma	Hall 2	C09
Peoplelink Unified Communication Pvt Ltd	Hall 2	A41
Pixel LED Pvt Ltd	Hall 2	A17
Rzone Pixel	Hall 2	E18
Sunrise LED Tech	Hall 2	A33
Tentech LED Display Pvt Ltd	Hall 2	A27
ViewSonic International Corporation	Hall 2	B41
Vishwanjali Technology Pvt Ltd	Hall 2	B68
Xtreme Media	Hall 2	C01
Yestech LED	Hall 2	D33
Zuper LED Media Pvt Ltd	Hall 2	E17
MEDIA PARTNERS		
ADSLA	J97	Hall 1
AES	J95	Hall 1
INAVATE	M57	Hall 1
MONDO	M61	Hall 1
PALA	J96	Hall 1
PALM AV-ICN EXPO MAGAZINE	D59	Hall 2
SAFESECURE	M64	Hall 1
SATELLITE INTERNET	M62	Hall 1
SCORE	M63	Hall 1

Expanding the Ever-Evolving Indian Pro AV Market

*In Conversation with Vijay Sharma,
Country Head, Optoma*



Vijay Sharma, Country Head, Optoma

*No obstacles can affect the vision of a growth-driven brand in India. This interview provides a glimpse on the efficiency of the pro AV industry leaders who work to drive the change diligently. **Vijay Sharma**, Country Head, Optoma India interacts with the AV-ICN Expo Magazine team about the marketing strategies, Optoma's growth in the Indian pro AV market, and how the team embraced the challenges during the pandemic. Vijay Sharma also elucidates on the expansion of the organisation and his role in leading the change.*

Vijay Sharma started his journey with Optoma as the Country Head in 2019 and has been a part of the expansion since then. With different marketing strategies and growth plans, he has played an influential role in the company. Optoma, being a Taiwanese company, established its operations in India in 2010. However, its recent performance has shown a major spike in the Indian business and is delivering results beyond expectations in India and globally. The brand extended its focus towards the pro AV segment recently in India and is ready to optimise the performance with better growth initiatives and solution-driven changes.

With the expansion model in mind, Optoma has brought many new launches in 2023 and is set to bring more AV products and solutions in 2024. Could you provide a brief on the new products launched in India?

In 2023, we introduced our high brightness laser projectors both in optional lenses and fixed lenses. In optional lenses,

our product range is up to 22,000 lumens and in fixed lenses, the product range is up to 10,000 lumens, which primarily is at par with other pro AV brands in the market. We also introduced our interactive flat panels in 2023.

This year marks the enhancement of our solid-state offerings, specifically laser projectors, we currently boast the most extensive projector range in India. As the industry shifts from traditional lamp-based to solid-state technology projection technology, we are at the forefront, driving significant advancements in the projector segment amid stiff competition from traditional lamp based projector brands. In our commitment to bring best of technology and environmental sustainability, we're expanding our portfolio with both mainstream and premium laser projectors.

Our recent launches include the 4K high brightness laser projectors with fixed lenses for both long and short-range projection. Additionally, we're updating our Interactive Flat Panels with the newest series and introducing versatile all-in-one

LED Displays, currently offering 130-inch and 163-inch models. We plan to introduce two to three more models in large displays this year. Expanding our focus, we're venturing into software collaboration products and devices with the introduction of our OMS – a cloud-based and on-premises remote management software. This innovative solution is designed for customers managing numerous devices, enabling IT administrators to control settings like remote on/off or troubleshoot issues across multiple classrooms instantly via software control. We're excited to officially launch the software this year.

How are you pushing Optoma as a brand in the country? Can you elaborate on your sales and marketing strategies, as also your dealer/distribution network?

In our marketing strategy, we focus on digital initiatives tailored to our main sectors, including hospitality, museums, education, and large-scale venues. We're dedicated to addressing the unique needs of each segment, deploying specialized teams like our home theatre group to engage consumers and segments digitally via social media. Our network of channel partners, experts in their respective fields, represent Optoma across India. They operate experience centres where customers can evaluate the actual performance of our products and make informed selections.

For the professional AV market, targeting large venues, auditoriums, and classrooms, we connect with B2B clients through industry events such as the AV-ICN Expo and Infocomm. These events and exhibitions are pivotal in reaching our intended audience and keeping them updated on our latest offerings and innovations.

How is Optoma adapting the trends in the pro AV market? Also, in the pro AV segment, many players are offering innovative projectors. How is Optoma creating a strong foothold despite the competition?

Currently, the projection segment is experiencing rapid growth within the professional AV industry. Optoma, a key player in the global projection market, began intensifying its focus on India's PRO AV segment from 2021 onwards. The company made strategic moves by participating in Infocomm and forging partnerships with leading systems integrators and consultants nationwide. These collaborations, coupled with efforts to educate these partners about Optoma's new products, have solidified our position in India's pro

AV market and facilitated connections with our intended audience through established channels.

At Optoma, we prioritize understanding the professional AV industry's needs and ensuring our products meet these demands. We gauge the confidence our partners and end-users have in our offerings; especially as pro AV solutions are increasingly adopted on a larger scale. The Optoma team in India is dedicated to delivering our products to users, leveraging our recent market entry. As one of the top OEM/ODM providers for several major global brands in the projection industry, our technical expertise and the distinct advantages of our products have been instrumental in securing valuable partnerships and establishing a strong presence in India's pro AV sector.

How do you approach the systems integrators and consultants apart from exhibitions as a marketing strategy?

Optoma spearheads an initiative known as OptomaMAX, a roadshow designed to directly engage with our target market across India. Additionally, we host dealer connect events in various cities, inviting the region's premier consultants and partners to present Optoma's array of products and solutions. These events serve as a platform to communicate our company's vision, mission, and operational methodologies. Beyond traditional exhibitions, these roadshows are instrumental in fostering customer relationships.

In a recent development, Optoma launched its inaugural national reward and recognition program. This initiative gathered the top 25 Optoma partners from across India, encompassing elite AV consultants, systems integrators, and distributors. These partners have demonstrated a profound interest in Optoma's professional AV solutions and have been pivotal in realizing our objectives and aspirations for the year.

Moreover, Optoma collaborates with industry-leading certification programs to enhance outreach to System Integrators, providing them with comprehensive knowledge of Optoma products and valuable industry insights. This collaboration ensures that professionals are well-equipped to represent and advocate for Optoma's innovative solutions effectively.

How has the brand performance been in the last five years?

Five years back, Optoma was relatively lesser known in the Indian AV market. Now, it's recognized as one of the top three AV

brands in the country. To secure our market standing, we're proactive in launching and updating products and new product segment for our brand. We actively engage with partners, consultants, and customers through events, exhibitions, and digital marketing efforts to enhance brand recognition. This year, we've partnered with Vistara Airlines for in-flight branding, ensuring our target customers become familiar with the Optoma brand. Our goal is to optimize brand awareness and retention among our target demographic by executing targeted campaigns at opportune moments.

In the professional AV sector, we've been one of the top three contenders in the fixed lens projector category for the past two years and remain in the top five for the optional lens projector category. Over the past three years, Optoma's market share has seen an increase from 5% to 15%.

Acknowledging certain shortcomings in the Indian business, our top management in Taiwan decided to overhaul the Indian business, we initiated a significant change from 2019. A new leadership team, including the Country Head of India was instituted to bring required reforms and to propel the organization's vision forward. This strategic move revolutionized Optoma's engagement with the Indian AV market, propelling the brand from a minor player to one of the most prominent names in the Indian pro AV industry.

What were the challenges you faced while setting up the teams and leading the change, especially during the pandemic as you mentioned above?

The pandemic did not significantly impede our progress, as we adapted our market strategy accordingly. Year 2018-2019 the projection sector was at its peak, but it suffered a decline during the pandemic due to the closure of educational institutions and corporate offices, affecting the broader pro AV segments. Consequently, we pivoted our focus to the home entertainment sector, securing suitable partners and directing our team's efforts toward establishing a dominant market presence and leadership in this area.

To achieve these goals, we engaged with essential stakeholders, including AV consultants and channel partners. Despite the ongoing challenges in sourcing the ideal resources and personnel, we have remained steadfast and committed to training, guiding, and equipping our partners. During this period our aim was to elevate brands standing and solidify Op-

toma's position as a market leader in Home Projector business, and we were successful by becoming No.1 4K UHD and Laser TV projector brand.

In which segment/sector do you see maximum growth?

Optoma is a top player in the residential AV segment right now as we have acquired over 35-40% of the market share for the segment in India. Overall, our home segment grew in double digits during the pandemic. However, post-Covid, we understood the changing needs of the market and started catering to other markets segments as well like pro AV segment and education.

Based on your response above, can you state how is Optoma positioned in the education sector?

Optoma stands out as a prominent supplier in the education sector and continues to be a leading provider in this market. With a focus on short-throw projectors, we have maintained our position as a top brand in this category within the Indian AV industry for over five years. We're not just informing systems integrators and partners about our products; we're also enhancing their portfolios by transitioning from lamp-based to laser projectors, capitalizing on the education sector's shift towards solid

state projection technology.

Two years prior, Optoma expanded its product range by launching interactive flat panels. The 5-Series was introduced to serve the high-end Indian market, including prestigious international schools and discerning customers. Subsequently, we unveiled the more cost-effective 3-Series, broadening our reach within the education segment. These strategic moves have led to the installation of approximately 5,000 displays and over 200,000 projectors across India, marking significant penetration in the market.

What about market for gaming and residential AV?

Optoma was the first brand to introduce the 240 Hz gaming projector in 2021. However, the gaming projector market did not find many buyers. Even though gaming is one of the fastest growing markets in India, it still has to go a long way when it comes to creating a demand for gaming projectors in the home entertainment industry. I believe, users prefer laptops and monitors over projectors for gaming.

Being a leader in European and American markets and obtaining a prominent position in the Indian market, how is Optoma strategizing to maintain the recognition it has developed today?

Undoubtedly, Optoma has set a standard in the industry, beginning with our initial operations. Our journey started in the UK, then expanded to the USA, where we solidified our presence in both European and American markets. In contrast, our Indian operations commenced with a new team in 2019, initially concentrating on establishing a robust presence in the education sector before moving to lead the professional AV segment as well.

Presently, we are a prominent name in India's 4K UHD projector market and rank among the top three in the professional AV industry, emulating the successful strategies of our American and European counterparts. Our B2B outreach has encompassed numerous systems integrators and channel partners. While educating the partners about our products and policies, we ensure the guidelines we create are in line with the brand's vision and mission.

Our policies cater specifically to the needs and preferences of each market segment, creating mutually beneficial outcomes. This approach has consistently provided us with a competitive advantage in the Indian professional AV market. Our aim is to expand our reach to Tier II, III, and IV cities, incorporating more skilled partners and integrators into our network, fostering collective growth.

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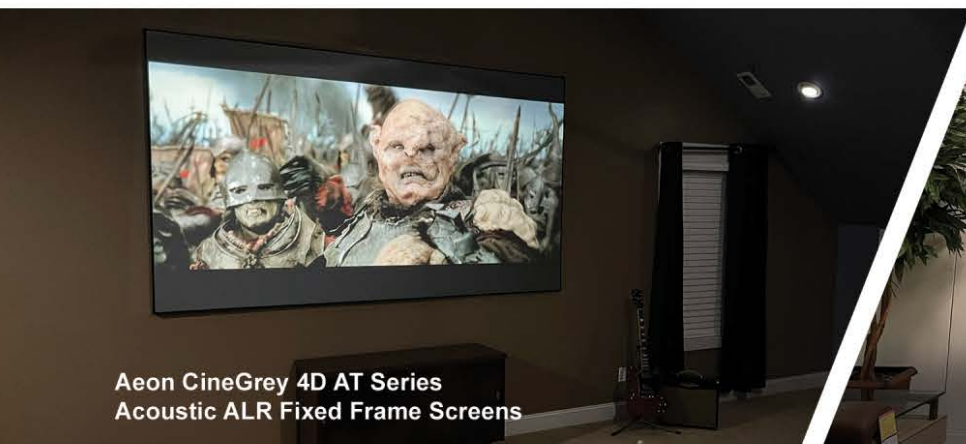
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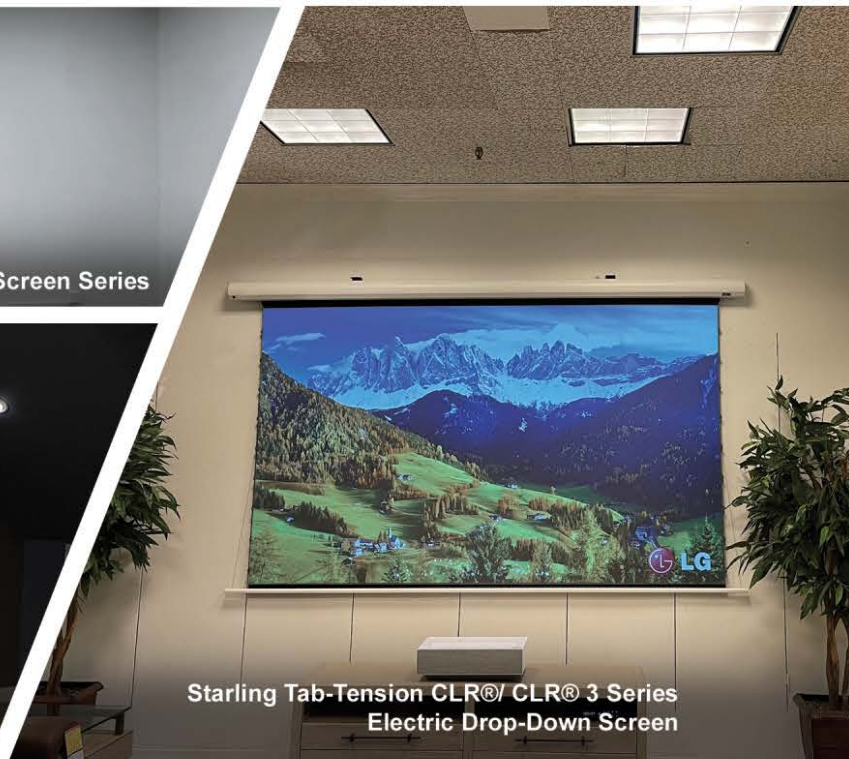
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