AV-ICN EXPO

MAGAZINE

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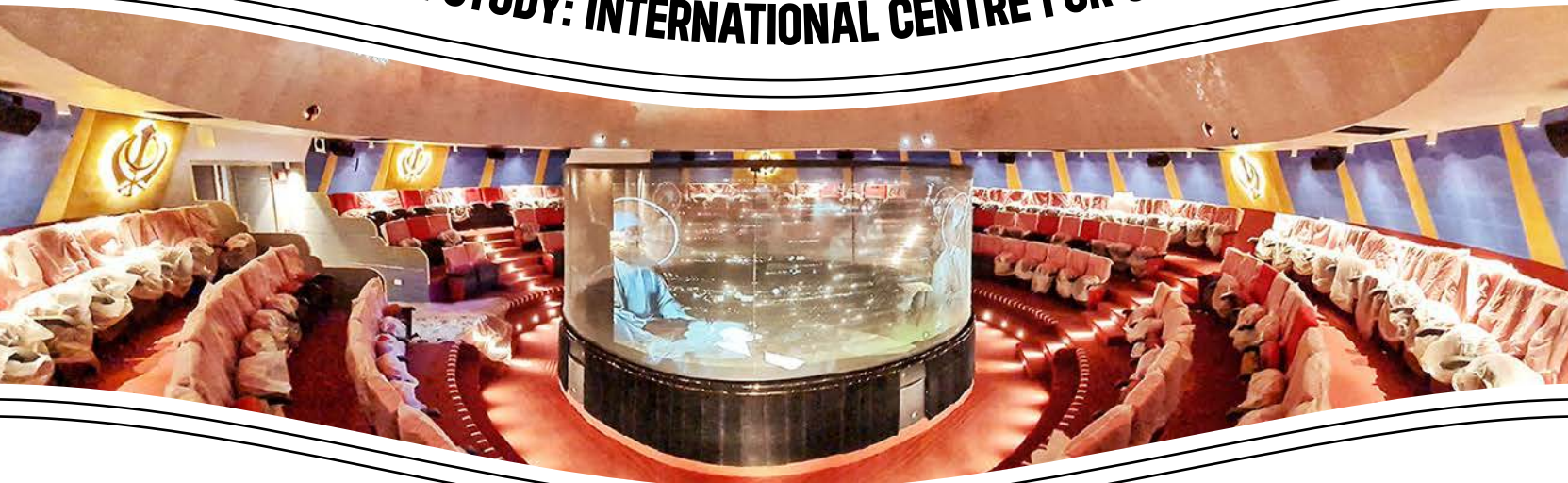
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AV INSTALLATION GLIMPSES 2023

NOVEMBER - DECEMBER 2023 ISSUE

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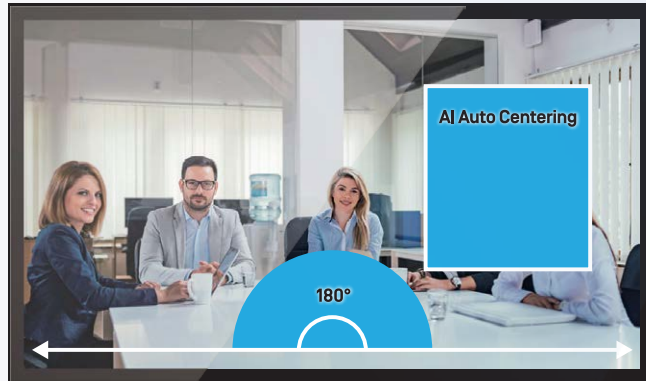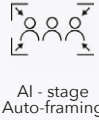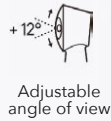
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Annual Planner

LUMINA SCREENS STEPS INTO HOME CINEMA SEGMENT WITH GALALITE

Lumina Screens is one of the home theatre brands backed by **Galalite**, a cinema screen manufacturing company in India with over 60+ years of experience in manufacturing futuristic cinema screens. With a strong presence in the cinema industry worldwide, including partnerships with major cinema chains, Galalite has consistently delivered innovative products that have wowed audiences. Now, Lumina Screens takes this legacy forward by extending Galalite's excellence in cinema screens to the realm of home entertainment.

The brand claims to provide immersive experiences to the movie enthusiasts to view their favourite films and shows with unique visual and audio quality, providing big

screen home cinema experiences.

Yusuf Galabhaiwala, Director of Operations at Lumina Screens, shared his perspective by stating, "At Lumina, our aim is to provide the audience with a cinema-like experience right in the comfort of their own homes. Lumina Screens offer

the perfect blend of technology, craftsmanship, and expertise, allowing viewers to enjoy an unparalleled cinematic experience without leaving their living rooms. What makes us unique is that we're the only Indian company manufacturing our screens in India itself. Our R&D team continuously explores and creates innovative technologies to ensure viewers can immerse themselves in a truly captivating experience."

Through the advanced projection screens and ALR technology, Lumina Screens creates visuals that transport users to another world through vibrant colors and stunning clarity that make every scene come to life.

LG ELECTRONICS ANNOUNCES ORGANIZATIONAL RESTRUCTURING FOR FUTURE GROWTH

LG Electronics (LG) announced organizational changes to take another leap forward towards achieving the Future Vision 2030 announced in July. The changes are being implemented to strengthen organizational capabilities and business competitiveness to realize the vision of transforming into a smart life solution company that connects and expands various spaces and experiences of customers beyond home appliances.

A key piece of the forward-thinking strategy is the newly established Overseas Sales and Marketing Company, which will report directly to LG CEO **William Cho**. The company will be led by **Thomas Yoon**, who previously served as the president and CEO of LG Electronics North America.

The Overseas Sales and Marketing Company will play a crucial role in accelerating change and growth as well as enhancing LG's global brand power by discovering and developing opportunities to create customer value. The new organization will manage overseas sales subsidiaries in North America, Europe, Latin America, the Middle East and Asia; Global Marketing

Group; and the Direct-to-Consumer (D2C) Sales Business Group.

The company will not only seek to strengthen executive capabilities in the overseas operations of strategically critical businesses including B2B operations, but also provide necessary support to bolster qualitative growth of all other business

units by aiding the development of overseas sales expertise as well as accelerating the advancement of platform-based businesses and innovative D2C business models. The D2C Business Group will take on the role of expanding customer contact points by strengthening Online Brand Shop (OBS) activities and customer data-based digital marketing capabilities.

The **Home Entertainment (HE) Company** is set to accelerate its transition

to become a media and entertainment powerhouse. To strengthen the smart TV operating system webOS, the webOS SW Development Group will be established for direct reporting to **Park Hyoung-sei**, president of the HE Company. Also, the eXtended Reality (XR) Business Division will be established directly under the headquarters.

Leading the company since 2019, President Park has been promoted in recognition of his contribution to upgrading the company's business portfolio, improving profitability of premium product lineups and growing the webOS platform while solidifying the company's position in the global OLED TV market.

The Business Solutions (BS) Company will expand sales and business operations in major regions such as North America, Europe, Central Asia, Asia and Latin America. The current B2B India Business Department will be upgraded into the B2B India Business Division to maintain continuous growth in the country.

All appointments are effective Dec. 1 with promotions going into effect on the first day of the new year.

ANAMORPHIC ILLUSIONS: IMPRINT STUDIOS CREATES 'INCREDIBOWL' CONTENT WITH IMMERSIVE VISUALS

Imprint Studios, one of the Mumbai based 3D visual providers, managed the auction night for **Incredibowl** at Jade Ballroom Sahara Star, Mumbai in August 2023. Incredibowl is a bowling tournament organized by **Tangent Networking Services** for one of the renowned architect's communities in Mumbai.

With the venue ready to host a

sitting with almost 200 players to be bid in the auction. The sponsors of the event wanted this night to be very special for the architects being bid, hence after every successful bid on the bidding software, the architect bought over was presented a memento by the winning team owner. Not just that, the team also incorporated elements in

giving the audience a whole new experience with anamorphic content as briefed by the client. **Chetan Suvarna**, Director, Imprint Studios, elucidated on the challenges at the event, stating, "The event had ten sponsors who were also the team owners. Therefore, managing ten stakeholders was our real challenge right from designing of content and assets for
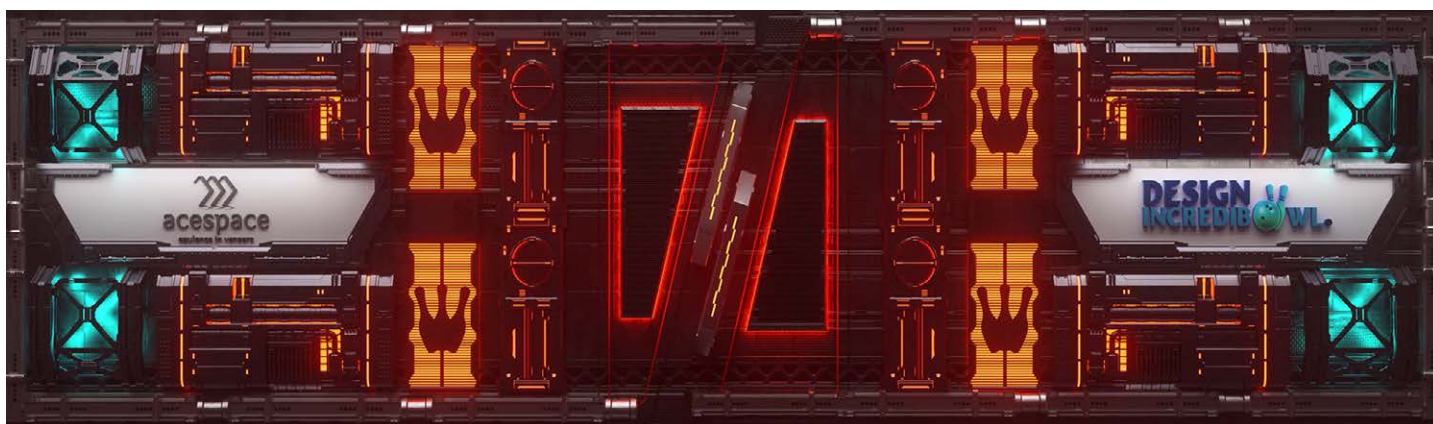
A view of the anamorphic content delivered at the auction night of Incredibowl designed by Imprint Studios

crowd of 300 to 400, the event had to be given the touch and feel of a grand auction night. Hence, the ten team owners were accommodated in a round table setup with each team owner and its staff for the auction night being given a table. The players were accommodated in a theatre-type

the pre-function area after a thorough recce and an approved 3D layout plan by the sponsors, like the trailblazing anamorphic photobooth to add to the grandeur of the event.

With the aim to help companies communicate visually, Imprint Studios wanted to make the event dramatic and huge,

the event to placement of their brands/ logos at the venue (as everyone wanted some strategic location for better visibility)."

With unique and innovative anamorphic for every player being successfully bid during the auction, anamorphic content became the showstopper. Imprint Studios' team worked on 3D software like Blender and Cinema 4D, and the post-production fine-tuning was done on 2D software like After Effects and Premiere Pro to find the right immersive visuals for the viewers. The team used a 3.9 mm **Shenzhen LED screen** to showcase the anamorphic content. Furthermore, a P3 screen was used to deliver the anamorphic content at the auction night. Whenever a bid went beyond 10 CR points, the screen displayed anamorphic content in 2D as a bowling bowl came out of a tunnel and stayed on the screen with the logo of the team who won the bid. Moreover, Imprint Studios also created an AV dramatic opening, jersey reveal, and cinematic trophy reveal at the event.

"Imprint Studios is amongst the

Chetan Suvarna, Director, Imprint Studios with the team at Incredibowl event

PRYSM SYSTEMS INTRODUCES DEMO CENTER IN MUMBAI

Prysm Systems Inc., one of the leading providers of large-format Laser Phosphor Displays (LPD) that create unrivalled immersion and engagement, announced the first demonstration center in Mumbai, India. As part of Prysm Systems continued growth, the company is invested in strengthening its presence in India by providing access to experience the

ernment organizations, Prysm Systems has introduced a new demonstration center to create a hands-on experience for current and potential customers. The Mumbai Demo Center will join Prysm Systems' growing list of experience facilities, including an existing location in Bengaluru, India and future location in Delhi, India.

"Mumbai is a very critical location for

integrators can visit this new location to experience our total solution that unites industry-leading large-format displays with powerful presentation and collaboration software. Thus, it's certainly a strong addition to our ongoing global expansion efforts."

The Mumbai Demo Center, created in partnership with **Trustech AV**, features Prysm Systems' LPD Series, one of the world's largest interactive single-panel display with a panoramic image uninterrupted by seams and bezels. The LPD Series produces vivid colors presented in best-in-class resolution with a deep contrast to deliver stunning picture quality. With a 178-degree viewing angle, the high-quality display can be viewed at any distance or angle. Plus, the large-format display eliminates common barriers of collaboration by enabling up to 32-points of touch simultaneously. Prysm Systems' stunning presentations, engaging displays and knowledgeable staff can satisfy every collaboration and display need.

L to R: Bashar Parvez, Ganesh Kumar, Bhavesh Rabadiya, Hardik Shah, Amit Jain, Akshay Gupta, and Harshal Upasani

advantages of a single-panel, high-impact LPDs.

Prysm Systems' Mumbai Demo Center is designed to showcase the most memorable and meaningful collaboration experience for an audience. To continue to serve a growing market and provide resources to existing customers, including top IT/ITES, financial institutions and gov-

us," said **Amit Jain**, President and Chief Executive Officer for Prysm Systems. "We have quite a few existing customers and the new demo center expands our ability to attract new opportunities. We understood the value of a demo center in Mumbai and within a short timespan we were able to make it happen. As a result, end users, consultants and systems

The LPD Series, featured in the Mumbai Demo Center, creates a digital workplace platform that unifies people, content, and ideas. Prysm Systems' LPD Series empowers collaboration and elevates presentations by enabling users to interact with live data, images, videos, browsers, and whiteboards whether they are in the room or working remotely through cloud hosting. Prysm Systems' products are essential to perfecting the hybrid workspace and connecting people like never before.

ANAMORPHIC ILLUSIONS: IMPRINT...   *Continued from page 04*

pioneers in India with regards to anamorphic content, with a team of artists and designers who have been delivering captivating anamorphic content so far. Considering the immersive experience given by anamorphic content its utility is immense in captivating viewers," stated

Suvarna on delivering immersive visuals at the auction event.

As a result, in a single-day event over 500 people witnessed the content and experienced the truly new form of auction and bidding with the anamorphic content. Lastly, the 3D anamor-

phic photobooth also hit the grounds becoming the PFA's centre of attraction with over 2000 hardcopies of memories shared.

Imprint team also managed Incredibowl's Jersey launch event held in September 2023 at the same venue later.

HAVI DESIGN Creates Immersive Experiences in New Delhi

The Experience Centre of O.P. Jindal University at Taj Man Singh Hotel in New Delhi is redefined with state-of-the-art AV solutions

Universities striving for quality education adapt cutting-edge pro AV solutions to elevate conferencing and meeting experiences. With the vision to deliver a world-class facility design, HAVI DESIGN INDIA LLP transforms O.P. Jindal University's Experience Centre at Taj Man Singh Hotel, New Delhi with unique AV solutions. AV-ICN Expo Magazine got in touch with Manikk Guptha, HAVI DESIGN INDIA LLP who along with his team elucidated on the experiences on creating impactful AV architecture and design at the venue.

O.P. Jindal University or Jindal Global University (JGU), a number one ranked private university in India in the QS World University Rankings 2023, based in Sonipat, Haryana, strives for quality education with the motive to have a world-class design facility for esteemed guests from various walks of life like professors from international universities, ministers, philanthropists, reputed lawyers, diplo-

mats etc., to not just address the students in person or through video conferencing and streaming but also present to these learned guests about JGU and its vision for future. For these high-profile guests on many occasions, time doesn't allow them to travel all the way to Sonipat.

The Experience Center of Jindal Global University at Taj Palace in New Delhi can accommodate up to 72 people and is equipped with state-of-the-art audiovisual and control system technologies. The space was created to truly reflect the quality and commitment of JGU towards their passion for quality education.

Taj Man Singh Hotel being so well centrally located near India gate and one of the finest hotels in Delhi, was chosen by the Vice chancellor – **Prof (Dr.) C Raj Kumar**, a man of taste and intelligence. Although a small space, but state-of-the-art technology implemented here creates an immersive and engaging experience for all attendees.

The existing space was being used for their internal staff training by Taj Man Singh hotel. Determined to identify the suitability of the products, the team also performed a thorough recce of the venue. **Nitish Sehgal**, RSM North, HAVI Designs India LLP, commented, "We visited the space before we started designing. However, the original interior was completely demolished and recreated by the architect from the scratch. So, we designed the system based on the new drawings received from the architect." He further added, "Considering limited space, we surely had to set up multiple meetings with the client and architect to emphasize on fulfilment of application and negotiate our way through to get right locations for the equipment being proposed from speakers, ceiling mic tiles, cameras, etc. as aesthetics were also very important for the client and they didn't want to compromise on the looks and feel of the space."

Installation Requirements

The first thing required by the client was a seamless LED screen going from left to right of the front wall as visioned by the University Vice Chancellor, Dr. C Raj Kumar.

With very specific and clear instructions, the client wanted everything, a world-class facility can have for an AV experience centre catering to applications like – video conferencing, lecture recording & steaming, movie viewing, presentations along with annotation facility, background music during informal gatherings, and complete control of lighting and AV over touch panel. However, designing and selecting the right components to meet the client expectations of a state-of-the-art system in a small rectangular space with a ceiling height of just 8 feet was a significant challenge as the team had to consider important factors like uniform distribution of sound, sight lines for video, and aesthetics.

Another challenge was to complete the project including interiors in 15 days and therefore, coordinating with a large team for different services in a confined space in terms of logistics and safety of equipment. In fact, the team only got 1.5 days after physical installation of all equipment to test, program, and commission.

Adding to the experiences during the installation, **Dhiraj Jangra**, Projects Head at HAVI stated, "We carefully created a project schedule and met with other services team heads to create a meticulous timetable, ensure teamwork, and meet the deadlines. Arranging the material in such short period of time and space constraints at the site for keeping the material was also managed with multiple rounds of transportation from our warehouse in Delhi at odd hours of the day." **Richa Chaturvedi**, Design Head at HAVI, further added, "Designing the system to ensure we fulfil all requirements without compro-

Enhancing AV experience centre with complete control of lighting and AV over touch panel with uniform distribution of sound, sight lines for video, and aesthetics

LED Screen installed from left to right at the front wall of O.P. Jindal University conference room for ultramodern audiovisual experiences

mising the result was achieved through out-of-the-box thinking and coordination with the architect team to get right locations for ceiling mic tiles, cameras, and speakers according to the requirements. Location of the rack just outside the hall was also very typical and we managed to convince the team to facilitate smooth operations."

O.P. Jindal's Installation in Brief

The audio system is a 5.2 setup with three Bose single 8-inch Front-of-House speakers, single 5 inch – two left and right surround speakers, and three rear surround speakers, along with two Dual 10-inch subwoofers.

The video system features an active asymmetric **Samsung LED video wall** with a P1.5-pixel pitch and measuring 28 feet x 5.6 feet, resulting in a total diagonal screen size of 300 inches. It can be configured and programmed to display multiple content simultaneously, which could be possible through TV video wall processor – Split View, Single Center Screen View, Full View, Video Conferencing View, etc.

For video conferencing, three Lumens cameras are installed with zoom capabilities of up to 12x and 20x, allowing them to capture both the presenter and participants with auto tracking (in centre camera) system that is also equipped with lecture recording and streaming facility through Lumens LC200.

For video conferencing, three Lumens cameras are installed with zoom capabilities of up to 12x and 20x, allowing them to capture both the presenter and participants with auto tracking system that is also equipped with lecture recording and streaming facility through Lumens LC200.

To capture audio for video conferencing and lecture recording, wireless gooseneck/handheld/lapel mics along with three

Sennheiser ceiling tile microphones are deployed, which are strategically placed to cover the entire hall and deliver exceptionally clear and crisp audio to the far end. Annotation through Touch tablet PC is also included.

Conclusion

The entire audiovisual system is set up and programmed to enable users to control and manage all functions, including lighting, effortlessly through a single touchpad via Kramer Controller. Furthermore, complete backend switching, and AV wall plate transmitters are from Liberty AV. This cutting-edge audiovisual and control system technology makes the conference and training room ideal for a wide range of events.

"The state-of-the-art technology implemented here creates an immersive and engaging experience for all attendees," states Manikk Guptha while recalling the successful installation. "IT Head of O.P. Jindal University, **Sridhar Ghanti** was also very impressed with our teams' organised approach and quality of work done in such a short period of time."

Apparently, Dr. C Raj Kumar was really impressed with how everything from audio, video, and lighting can be controlled and managed so simply from a touch panel in his palm. In the end, he was dazzled with the quality of the audio and the asymmetrical LED video screen installed.

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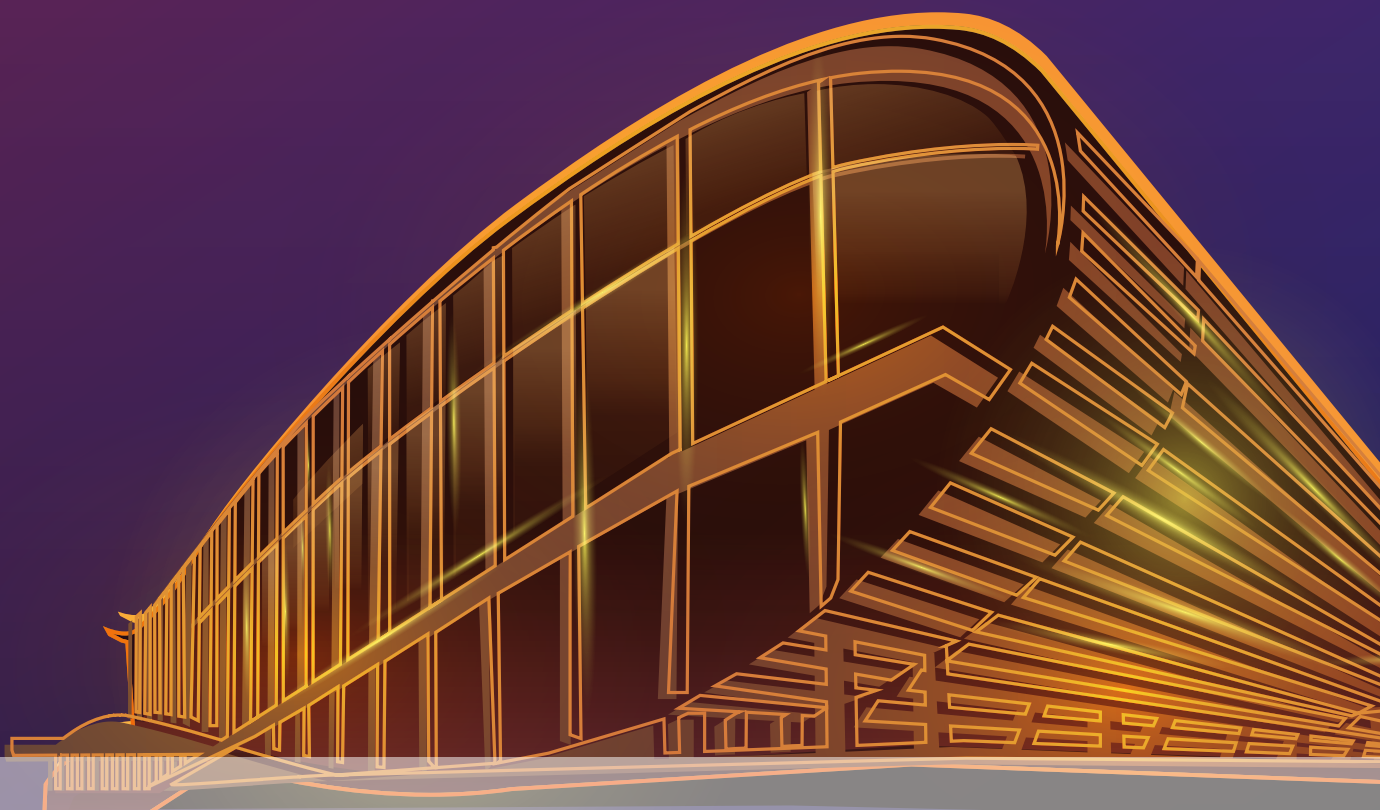
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Advancing Night Tourism with AV Integration in India

Narendra Naidu, Chairman and Managing Director, Rhino Engineers

A Conference Session by Narendra Naidu, Chairman and Managing Director, Rhino Engineers Pvt. Ltd. on Large Scale AV Integration of Visitor Attraction Venues

In this conference session held during PALM + AV-ICN Expo 2023, titled, 'Large Scale AV Integration of Visitor Attraction Venues', **Narendra Naidu**, Chairman and Managing Director of Rhino Engineers Pvt. Ltd., took the audience behind mega AV projects integrated to attract large scale visitors in India.

N**arendra Naidu** started the session by sharing that every big AV project begins with a big thought. He mentioned, "If you have conceived any project in mind, you have to rise above the little things and be a big thinker. Life is too short to think small. Think fast, but beyond horizon. Ideas are no one's monopoly. So, try to implement the ideas that pop on your mind."

But, how to think big? Naidu adds, "Allocating some time to nurture your ideas will help keep the priorities in check. You have to 'buddy up,' which means having a team, col-

leagues, or people to interact with on how to derive the best technologies and the best projects. Choose a specific goal and find the right direction to deviate your thinking levels. Then, identify the path that you will walk to conceive your innovative ideas. Lastly, ground yourself in reality. Dreaming big is not a crime but doing things properly is important to execute your thoughts."

Narendra Naidu talks about one of India's largest 3D projection mapping shows on Gabbar Hills, Ambaji executed by Rhino Engineers

Integrating Gabbar Hills with 3D Projection Mapping

Leading the discussion towards large-scale AV integration in a venue like Gabbar Hill in Gujarat, which in Naidu's own words, is "India's Largest 3D Projection Mapping on Natural Surface," Naidu informs the audience about the projectors used during the 3D Projection Mapping at Gabbar Hill. He states, "I conceived this project in 2013. However, I kept waiting for the right time. With this project, we encountered rocky mountain surface in a very rough terrain. The project cost was 13.56 crores. It was commenced in March 2022 and completed in April 2022, which is a matter of pride for any AV consultancy. We are now making the tourists stay back and look at the night attractions. This ultimately helps the market develop local businesses, hospitality businesses, and the vicinity around the areas. So, we visualized the concept and started working with a detailed concept presentation. There is a saying, 'whatever you did, one fine day it is going to pay you back'. Therefore, we focused on the concept and created experiential 3D projection mapping weaved on the natural surface."

Going further, amongst many other things, Naidu informs the audience about the famous Ambaji Temple situated at the Gujarat and Rajasthan border and 3D projection mapping achieved at the venue. He states, "According to the mythology, Ambaji – the divine shakti of Sati, after self-immolation,

was scattered in 51 pieces, out of which, the heart part fell at this place. Ambaji Temple is recognized for its Ambaji Bhadarvi Poonam Fair where around 25 lakh people visit. Not only that, but many people also walk towards their destinations for nights and days during the summers." He adds, "I had a dream to do something big. So, in this venue of 265 m wide and 68 m tall area, I wanted to project goddess Ambaji on a large scale of natural surface. With the approval from the government and the PMO been sanctioned, the project had to be completed in a very short span." He also stated that since the completion of the project, the footfall at Gabbar Hill in Gujarat has tripled. The venue has also been nominated in the Limca Book of Records as claimed by Naidu during the conference and was engineered by Rhino Engineers, integrated by **Tricolor Schauspiel India**, and inaugurated last year by honorable Chief Minister of Gujarat, **Bhoopendra Patel**.

Naidu claims that India's biggest 3D projection mapping on Gabbar Hills was also the world's first installation of 45,000 lumens RGB laser projectors by **Christie**. He states, "Iconic building, landmark tower, forts, royal places or even temple shrines have become the surface for the projection mapping. This is a natural huge rock amidst the thick vegetation, located some 4.5 km west of the famous pilgrim town of the Ambaji. The hard rock terrain of over 18,000 sq. mt. around the states' border has been transformed into a

natural canvas (certainly, not a loveable canvas for a projection technology) for one of the best storytelling 3D projection mappings in India with 6 RGB pure laser projectors of 45,000 lumens brightness, gating into the act of luminating 490 m high hill. As massive as it is in size and scale, executing the installation in just four weeks was challenging."

As required by the natural rocky hillock surface, the installation demanded the best possible projected image. Naidu explains, "Nothing less of 4K image could be adjusted to this event. It was therefore, recommended to rope in Christie D 4K RGB pure laser projectors that come with the 45,000 NC lumen brightness apart from the all-in-one stack of the project. Total of six DK 4K 40 RGB projectors are deployed in the application, which means a whopping figure of 2,70,000 lumens on the rock. The projectors are mounted on two specially constructed towers of 5 m each. One tower is fitted with two projectors horizontally while second tower has four projectors stacked into a 2*2 matrix and protected by the weatherproof enclosure. These are placed about 120 m away from the Gabbar projection site, making it an ideal distance to display optimum visuals on the hills on uneven and dark surfaces. Furthermore, the installation augmented the heavy dust laser projection with around 20 units of 280-watt LBT moving head fixtures along with the solitaire GOBO light image projector from Martin Audio. Keeping audio in mind, the team deployed 5.1 surround sound system with the turbo sound and system and the pair of clock technique DSP – DM 8500 and DM 8008, powered by the Lab Group and interface by Bearing Gun UMC – 1820 device."

The hard rock terrain of over 18,000 sq. mt. around the states' border has been transformed into a natural canvas for one of the best storytelling 3D projection mappings in India with 6 RGB pure laser projectors of 45,000 lumens brightness, gating into the act of luminating 490 m high hill.

Integrating cutting-edge technologies around the Statue of Unity

Highlighting his big dream to transform visitor attraction venues and night tourism in India, Naidu emphasized on the latest installation around the Statue of Unity, ideated to attract more visitors. He states, "Ensuring that the money is invested rightly and protected for the public, we spent days and nights for three years and have proven that India can also have best technologies and attractions. In fact, the honorable Prime Minister also tweeted that this is one of the best shows. Now people visit the Statue of Unity not merely for the Statue, but to see the lighting of the dam, **Glow Garden, Motifs, Valley of Flowers, Cactus Garden, Butterfly Garden, Shoolpaneshwar Temple, Orientation Center**, and the entire stretch of gantries lighting around it. People even visit the venue to see the lighting during the Narmada Ashtakam's aarti at Shoolpa Natural Ghat."

To suffice an unparalleled experience to the visitors with the new introduction of technologies and a variety of concepts, Rhino Engineers' team accommodated attractive, dynamic, and innovative audio-video technology at the venue for night tourism and sustainability. Naidu expresses, "The Government of Gujarat and Government of India has motivated and permitted us to work with the technologies that have never been seen before and because of that, the footfall of venue has increased to as high as 50,000 visitors during the holidays and even 1 lakh per day during the Diwali season."

Naidu takes the audience through a quick scan of the projects delivered around the Statue of Unity. From Maze Garden to other important projects executed, he reflects on the concept and the final installation delivered at the venue. Some of the projects included **Shrestha Bharat Bhavan, Circuit House, Sardar Sarovar Dam, Jungle Safari,**

Reviewing the list of projects executed around the Statue of Unity:

Name of Project	Scope Of Consultancy
Shrestha Bharat Bhavan	Dynamic RGBW LED Facade Lightings
Circuit House	Dynamic RGBW LED Facade Lightings
1.3 KM Sardar Sarovar Dam	25 Minutes Ornamental Laser, Light & Sound show
Jungle Safari	CCTV Surveillance & Network System
Children Nutrition Park	Digital technologies, AR/VR, 3D Projection, Hologram, Interactive LED Screens, 5D theatre & Other cutting edge tech games & Facade lighting
Hillock & Roadside	Green Lightings tree
Vishwa Van	Dynamic RGBW LED Facade Lightings
M&VC Building, Connecting Bridge, Wall of unity, Ticket Counter and Canopy	Dynamic RGBW LED Facade Lightings
Jungle Safari Plaza	PA System
Palm Island	More than 450 Innovative Glowing Palm Trees
Food Courts	Dynamk RGBW LED Facade Lightings
Ekta Mall Main Gate	Gujrati, Rajasthani, Kathiawadi Handicrafts blinking - Slogan of "Unity in Handicrafts Diversity"
Ekta Dwar	LED Screen with Dynamic HD Content (Welcome to Statue of Unity & Thank You, Visit Again) in 7 international and 10 regional languages.
Dymanic Road Signage	10 X 10 ft, Dance and Garba Illuminated Panels
Valley Of Flower & Bharat Van	Dynamic RGBW LED Facade Lightings
India's First Glow Garden	LED Illuminated Trees, Animals and Flowers, Interactive dancing floor circles, Selfie points, State of Art Parachute, Dynamic fountains & Palm Trees, etc.
Gora Bridge	Dynamic RGBW LED Facade Lighting and Pixel Lighting
Street Decorative Lights	India's First Innovative RG6W Illumination Motifs 495 Nos. on streetlight of 10KM
Street Decorative Lights	India's First Innovative RGBW Illumination Gantries 48 nos. on streetlight of 10 KM
Valley of Flowers	Dynamic Panel -View Point 1 to entrance at valley with slogan of "Unity in Bio-Diversity - Valley of Flowers" and from viewpoint 1 to flower of Kevadiya Jurassic Park (Letters) with Dinosaur element
Cactus Garden	India's Largest Illuminated Signage 5X57 Meters
Butterfly Garden	India's Largest Illuminated Signage 5 X 67 meters
Ekta Garden	India's Largest Illuminated Signage 5 X 52 Meters
Reva Bhavan	Green Lights Tree Illumination on Reva Bhavan
Maze Garden	Innovative & Cutting-Edge LED Screens AV Show
Kamalam Nursery	Curved Projection & 360° Hologram AV Show
Miyawaki Forest	Curved Projection & Illumination AV Show
Cactus Garden	Life size hologram AV Show
Jungle Safari	India's Biggest Augmented Reality LED Screen Show
Shoolpaneshwar Ghat	25 Min Aqua Screen & Musical fountain in three languages.
Shoolpaneshwar Temple	Dynamic Lighting & Attractive Motif Lights.

Golden lighting effect at Cactus Garden at Statue of Unity, Ekta Nagar, Kevadia, Gujarat

Dam runs for 1.3 km * 60 m width. 2.5 km away from this, there is a weaving gallery to communicate with the technical guys using TX-RX. Furthermore, a 25-minute aqua screen musical fountain was also installed in three languages for the visitors."

Conclusion

With the new advancements rising every day, there's a need for every AV installation provider to stay updated too. People get uninterested in visiting the same old ambiance every time and therefore, as claimed by Naidu, the teams are working hard to revamp things to give visitors a new feel every time they visit. He shares, "It's not a one-day event. The show is happening every day where 285 queues are being given for every song and there are 25 songs to be played at the venue. It's not easy but the teams put in all the efforts to make it possible." Overall, Naidu expressed his joy to be a part of such a huge project and deliver finest results along with the team to make it one of the exceptional attraction venues through digital technology.

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

Children Nutrition Park, Hillock & Roadside, Vishwa Van, Wall of Unity, Ticket Counter and Canopy, Jungle Safari Plaza, Palm Island, Food Courts, Ekta Mall Main Gate, Ekta Dwar, Dymanic Road Signage, Valley Of Flower, Ekta Garden, Cactus Garden, and Butterfly Garden, Bharat Van, Glow Garden, Gora Bridge, Street Decorative Lights, Valley of Flowers, Reva Bhavan, Kamalam Nursery, Miyawaki Forest, Cactus Garden, **Shoolpaneshwar Ghat**, and **Shoolpaneshwar Temple**. He mentions, "Children Nutrition Park is created to educate the children through the technology like AR/VR, 3D projection, hologram, interactive LED screen, 5D theatre, mirror image, and other cutting-edge technologies that have been installed."

He adds, "Who would have thought there can be a sound and light show at a dam too. The light and sound show at Sardar Sarovar

AV-ICN EXPO 2024 - CREATING MASS MARKET MOMENTUM IN INDIA

India's AV integration, communication, and networking landscape is experiencing unprecedented growth, propelled by the dynamics of 5G and AI. AI-driven documentation and best practices have ushered in a new era, attracting a surge of System Integrators armed with cutting-edge solutions. While Bengaluru, Delhi, Mumbai, Hyderabad, Kolkata, and other state capitals have traditionally been AV technology hubs, the sector is expanding across the nation. Diverse projects in government, education, hospitality, and

the market, serving as a bridge between the marketplace and sourcing solutions. AV-ICN stands as the pulse of India's AV industry, drawing in active professionals with its focus on innovation.

Empowering India's Engineering Excellence

AV-ICN Expo embarks on an ambitious agenda, leveraging India's engineering prowess. Indian AV companies, with their global engineering excellence, have the opportunity to customize solutions, incor-

of international AV integration specifications for effective communication and networking. CAVS serves as a catalyst, attracting talent to the AV industry and offering education on AV technology. The curriculum, curated by professionals holding top-tier certifications such as BICSI Certified RCDD and OSP, ensures high-quality education. AV-ICN Expo also recognizes industry excellence through the AV Architect of the Year award.

While top-level SIs and AV Consultants are regular attendees, our promotional and marketing activities ensure we reach to connect with end-users and buyers directly. The exhibition also features a knowledge-sharing conference platform and an interactive project gallery, enriching the experience. The expo also stands as an inclusive, neutral, and independent platform, offering groundbreaking technology solutions to the wider AV market.

Join us at AV-ICN Expo to explore cutting-edge AV solutions, industry standards, and global innovations shaping India's AV landscape. Don't miss the opportunity to be

AV-ICN platform delivers solutions on audiovideo integration, communication and networking

tourism sectors are driving this growth.

The advent of 5G has sparked a rush in AV products, particularly interactive displays and touch screens, offered by numerous new brands. The market has witnessed an influx of high-quality interactive displays, transforming the dynamics of branding and sourcing. AV Consultants and System Integrators are wielding significant influence in niche markets, leveraging these advanced solutions.

In this transformative landscape, AV-ICN plays a pivotal role as a catalyst. The expo, complemented by its eponymous magazine, disseminates crucial information about products, projects, and technology. It caters to the evolving needs of

porating critical inputs in AV technology. Experience is a key ingredient, and India's track record in successfully executing challenging projects is noteworthy. AV-ICN Expo aims to empower these companies, enabling them to secure projects in the APAC and EMEA regions, thereby propelling India to the forefront of the global AV industry.

Certified AV Specialist Course (CAVS): Empowering Industry Standards

The Certified AV Specialist Course (CAVS) takes a proactive role in establishing professional AV standards. It promotes protocols, best practices, and the adoption

part of this transformative journey in AV integration and communication.

AV-ICN Expo - where innovation meets integration. Participate early to gain access to prime locations and showcase the future of AV technology in India and beyond.

Contact us at **Anjali.Pandey@hyve.group** or +91 78740 34278.

AV-ICN EXPO

For more information on AV-ICN, kindly visit us at https://av-icnx.com

INDIAN PRO AV MOMENTUM

INTEGRATING MASS MARKET DYNAMICS

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AV-ICN
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Pro Audio

Hall 2
Pro AV

Hall 3
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By Hyve

CHRISTIE GRIFFYN SERIES POWERS SON ET LUMIÈRE AT SRI KRISHNA JANMABHOOMI TEMPLE WITH SPECTACULAR VISUALS

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

Situated in Mathura, a sacred city in

The nightly 40-minute light and sound show which portrays Lord Krishna's life as a symbol of tenderness, patience, compassion, and love, was inaugurated by Agra's Chief Minister, **Yogi Adityanath**. This mesmerizing presentation was accomplished by eight **Christie Griffyn 4K32-RGB** pure

Christie Griffyn 4K32-RGB projectors deliver breathtaking visuals on the façade of the Sri Krishna Janmabhoomi Temple (Photo courtesy of Modern Stage Services)

Pilgrims and visitors flock to the temple for the nightly light and sound show (Photo courtesy of Modern Stage Services)

India's northern state of Uttar Pradesh, the Sri Krishna Janmabhoomi Temple is traditionally regarded as the birthplace of Lord Krishna, one of the most widely revered divinities in Hinduism. With its origins dating back to the 6th century BC, this temple stands as a site of profound importance and ranks among India's most frequented religious destinations.

laser projectors, meticulously installed and commissioned by **Modern Stage Services**, one of the renowned systems integrators recognized for numerous projection mapping projects across India. Its portfolio includes prominent landmarks such as the Old Fort in New Delhi and the Sanchi Stupa in Madhya Pradesh.

"Bringing the legend of Lord Krishna

to life through the captivating fusion of light and sound has been an incredible journey," said **Kartik Wadhwa**, director of Modern Stage Services. "We are delighted to partner with Christie to strategically deploy the Griffyn Series projectors in weatherproof enclosures at the Sri Krishna Janmabhoomi Temple for this highly anticipated *son et lumière*, which reaffirms our commitment to delivering awe-inspiring visual experiences at one of India's most cherished landmarks."

Rishubh Nayar, Sales Director for India, Enterprise, Christie, added, "This new light and sound show at the Sri Krishna Janmabhoomi Temple is a testament to the enduring power of storytelling through projection technology, and we are honored to be a part of this iconic endeavor. The Griffyn Series projectors not only bring historical narratives to life, but also showcase the immense potential of visual artistry at this sacred site, enriching the spiritual and cultural experience for countless pilgrims and visitors."

The selection of the Griffyn Series for this prestigious project was a natural choice, given the track record of illuminating large-scale monuments and venues across India, such as the Statue of Equality in Telangana and BAPS Sri Swaminarayan Mandir in Gondal. Known for its image quality and superior performance, the Griffyn Series has consistently delivered impressive visuals that have left a lasting impact on the audience.

With lumen options ranging from 36,500 to 50,000, the all-in-one Griffyn Series is among the smallest, lightest, and brightest RGB pure laser projectors available. Equipped with Christie TruLife+ electronics platform for all-in connectivity and Electronic Color Convergence (ECC) that allows for perfect color alignment, this 3DLP® projector series can produce greater than 98% of the Rec.2020 color space, resulting in richer and true-to-life colors. As well, the Griffyn Series comes with integrated Christie Twist for warping and blending, and is compatible with Christie Mystique, automated camera-based alignment software solution that can quickly manage and maintain multi-projection systems.

SENNHEISER'S TEAMCONNECT CEILING2 REVOLUTIONIZES HYBRID LEARNING AT KIIT BHUBANESWAR

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

KIIT has 25 lush green campuses that are spread over a vast 25 square-kilometre land space that features world-class

150 units of TCC 2 were deployed across the KIIT Bhubaneshwar campus as part of the institution's journey to a smart campus

infrastructure and facilities to support its mission to deliver quality education and research across various disciplines. In the wake of the global pandemic, the University, like many educational institutions worldwide, faced the same challenge of having to adapt to a hybrid learning model. With a substantial number of students attending classes remotely, KIIT sought a seamless, touchless solution that can mitigate hygiene risks and can serve both on-site and remote students.

Working closely with Sustainable Outreach and University Leadership Limited (SOUL), the project's Principal Integrator, KIIT found its solution in Sennheiser's TeamConnect Ceiling 2 (TCC 2). The university deployed 150 units of TCC 2, ushering in a flexible, hybrid learning experience that met their unique needs.

Customized audio for diverse spaces
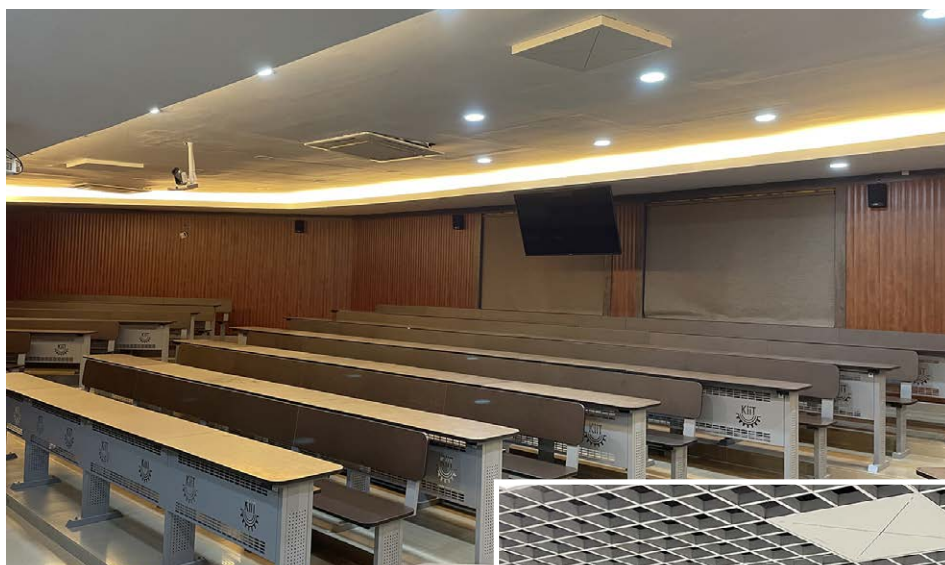
The requirements seem straightforward, but the installation had its own set of challenges. Across 150 rooms in the university, each room required specific audio adjustments and settings due to the seating arrangement and layout of each room.

The Sennheiser team and the team of engineers from SOUL played a pivotal role in ensuring the success of this project, and that all the requirements of KIIT

Sennheiser meets installation requirements of KIIT with smart ceiling solutions throughout the campus

were met. They carried out a seamless and hassle-free installation within the stipulated timeframe and delivered an outcome that KIIT was satisfied with.

Sasmita Samanta, Chairperson cum Managing Director, SOUL, commented, "We really appreciate the service and guidance rendered by Sennheiser team

and SOUL. They understood what we wanted and simply delivered. Our instructors and students, regardless of whether they are on-site and remote, can now focus on learning and teaching without any disruptions."

"The audio clarity is excellent, and we received feedback from students that it felt like they were physically in the classroom even when they were participating remotely! The TruVoicelift functionality and the speech intelligibility of the Sennheiser TCC 2 are indeed game changers," said **Pradeep Kumar Mallick**, Associate Professor at KIIT's School of Computer Engineering.

Since 2020, KIIT has been on a transformative journey to convert its campus into a smart campus through partnerships with leading industry brands. "Furnishing our campus with Sennheiser's products has significantly enhanced the quality of our educational offerings," shared Sasmita Samanta, Vice Chancellor of KIIT.

Naveen Sridhara, Director of Sales, Business Communication at Sennheiser India, added, "I am thrilled to witness the role that Sennheiser's TCC 2 has played in KIIT's journey to smart campus. At Sennheiser, we are committed to building the future of audio and creating audio solutions that can better serve our end-users."

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	MON	TUES	WED	THUR	FRI	SAT	SUN	MON	TUES	WED	THUR	FRI	SAT	SUN	MON	TUES	WED	THUR	FRI	SAT	SUN	MON	TUES	WED	THUR	FRI	SAT	SUN	MON	TUES	WED	THUR	FRI	SAT	SUN	MON	TUES
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FEB 2024			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29					
MAR 2024			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
APR 2024	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30						
MAY 2024			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1		
JUN 2024			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30				
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OCT 2024	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31					
NOV 2024			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30				
DEC 2024			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
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	MON	TUES	WED	THUR	FRI	SAT	SUN	MON	TUES	WED	THUR	FRI	SAT	SUN	MON	TUES	WED	THUR	FRI	SAT	SUN	MON	TUES	WED	THUR	FRI	SAT	SUN	MON	TUES	WED	THUR	FRI	SAT	SUN	MON	TUES

Event listings:
- The NAMM Show (USA) www.namm.org — January
- ISE (Spain) www.iseurope.org — January/February
- Get Show (China) www.getshow.com.cn/ — March
- Prolight + Sound Frankfurt (Germany) pls.messefrankfurt.com — March
- NAB Show (USA) www.nabshow.com — April
- Koba (Korea) www.kobashow.com — May
- Prolight + Sound Guangzhou (China) prolight-sound-guangzhou.hk.messefrankfurt.com — May
- PALM Expo 2024 (Mumbai) www.palmexpo.in — May
- AV-ICN 2024 (Mumbai) www.av-icnx.com — May
- Infocomm 24 (USA) www.infocommshow.org — June
- Infocomm India (Mumbai) www.infocomm-india.org — September
- IBC (Netherlands) show.ibc.org/about_us — September
- Pro Integration Future Asia (Singapore) www.prointegrationfuture.asia — September
- Interbee (Japan) www.inter-bee.com — November

*This is an ambitious project of **Delhi Sikh Gurdwara Management Committee** being implemented through **Sun Foundation**. The idea behind the formation of '**Sri Guru Tegh Bahadur Holographic Auditorium and International Centre for Sikh Studies**' is to propagate the life, philosophy, and teachings of Sikh Guru Sahiban and showcase the unique martyrdom of Ninth Guru Sri Guru Tegh Bahadur Ji and sacrifices made by tenth Nanak Sri Guru Gobind Singh Ji. Optoma and MSS World take the opportunity to integrate the venue with cutting-edge AV solutions.*

Dome Holographic Presentation on History of Sikh Gurus and Martydom of Guru Tegh Bahadur Sahib

INTEGRATING PROJECTION AND HOLOGRAPHY

The **International Centre for Sikh Studies** wanted to create a 45-minute audiovisual show that knits the long history of Sikhism from its inception to today with the latest projection technology. This full 360° dome projection covers an auditorium that is 18 meters in diameter and 10 meters in height, equipped with 200 seats. The auditorium projection is an immersive viewing experience that aims to create awe-inspiring and emotion-inducing memories.

The building construction was completed in 2018, but due to the complex nature of this immersive dome projection, no other brands were willing to take on the AV installation component. This is when **Optoma** and **MSS World** stepped in and took the opportunity head-on.

Solutions:

During the planning phase, the project's complexity evolved with adding a 6 meters diameter and 2 meters height holographic solution along with the 360°dome projection. Despite challenges with an inflexible projection area and the limitations of projector distances, all projection and holographic content

Creating awe-inspiring and emotion-inducing environment with 360° dome projection

needed to be integrated.

Throughout 2022, Optoma India and MSS World worked closely with the International Centre for Sikh Studies to create the massive dome and holographic screens.

This project is the largest installation project in India for Optoma yet. The Optoma India team provided the client and their vendors with hands-on experiences with model preselection.

> *The 'Sri Guru Tegh Bahadur Holographic Auditorium' was designed so the audience can enjoy 360° of surround sound. The auditorium's dome is the finest screen to project an immersive dome-based video display environment.*

5 units of ZU1050 and 5 units of ZU750 were chosen and used with A01 Short throw lenses. Both projector models are one of the most versatile ones in the industry, with 6 interchangeable lenses to adjust to different installation needs. The models were equipped with MultiColor Laser technology, which defines outstanding balance in accurate color reproduction and exceptional brightness, making no trade-off between brightness and color. ZU1050 and ZU750's 10,000 and 7500 ANSI lumen brightness matched the color temperature and created a bright and immersive projected video and holographic imagery.

Results:

The 'Sri Guru Tegh Bahadur Holographic Auditorium' was designed so the audience can enjoy 360° of surround sound. The auditorium's dome is the finest screen to project an immersive dome-based video display environment.

In the auditorium's center is the holographic display, which utilizes light diffraction to create virtual three-dimensional imagery. With digital overlay and holographic display technology, the brain is tricked by the illusion of a real object or environment.

The **Widescreen Ultra eXtended Graphics Array (WUXGA)** content is to run seamlessly on dome projection and holographic display. It creates a story and an immersive field experience for 200 viewers no matter where they are seated.

The immersive projection and holographic experience are filled with real-time interactive components and pre-rendered linear computer animations and graphics, combining numerous influences. The viewers enjoy visual and audio experience mixed with art, a well-knitted history of Sikhism, and technological roots in domed architecture.

Professor Rawail Singh, Secretary General of the International Centre for Sikh Studies, commenting on the success of the installation, stated, "This is a team effort, where Optoma has a huge role in the equipment, which plays our content. I watched it daily, and yet, I feel like watching more. Such is the greatness of our Guru's life philosophy, coming through production and machinery. Everything is marvellous!"

Inventory List

- 5 units of ZU1050
- 5 units of ZU750
- 10 units of A01 short throw lens

Infocomm India 2023 Concludes on a Successful Note with over 190 Exhibitors

The recently concluded Infocomm India 2023 event held in Mumbai allowed the industry to discover innovative AV and Integrated experience solutions. The expo boasted of over 190 exhibitors, informative summits and a considerable number of delegates sourcing cutting-edge AV technologies. AV-ICN reports in brief.

Infocomm India 2023, held from 25 to 27 October at Jio World Convention Centre (JWCC) in Mumbai, welcomed 12,026 business visitors on an expanded show floor, as reported by Infocomm itself. Looking for unprecedented growth and innovation, Indian AV industry has managed to expand the segment once again witnessing a 19% expansion at Infocomm India 2023. Based on the information gathered from the official website of Infocomm, the event accommodated 190 exhibitors including 18 first-time participants and 160 high-level hosted buyers from the public and private sectors.

The 11th edition of India's professional audiovisual three-day event allowed visitors to explore the latest innovations to meet their organizational needs. From professors and students of Shreemati Nathibai Damodar Thackersey (SNDT) Women's University joining the event to pro AV professionals keen on gaining insights into the pro AV industry, Infocomm 2023 aimed at driving the business community to discover innovative pro AV and Integrated experience solutions.

Expressing the growth witnessed at this year's event, Infocomm Asia's Executive Director, **June Ko**, claimed, "InfoComm India 2023 has not only attracted greater numbers but also a diverse range of business visitors from key growth industries such as technology, education, healthcare broadcast and media as well as enterprise solution users. The diversified participation and increased levels of transactional conversations point to an active Indian marketplace and highlights InfoComm India as a key gateway for global brands into these vital sectors."

Summit Overview

Parallel summit sessions delivered a range of topics to keep the pro AV professionals informed and help navigate the most significant challenges and trends in the AV industry with over 40 sessions scheduled around the three-days event.

AVIXA (Audiovisual and Integrated Experience Association), designed and delivered by leading AV systems integrators and consultants, allows the AV community to upgrade the technical expertise, and nurture the next generation of AV leaders. Some of the sessions included – *'New Workplace - Strategies and Technologies'*, *'Creating a Multi-purpose Hybrid Room for Indian Oil'*, *'AV Tech and the Future of Learning environments'*, *'Global experience Center at O.P. Jindal University'*, *'The Power of Pixel'*, *'Digital Signage'*, *'Control Rooms of the Future'*, *'Motion Tracking for the Broadcast and Movie Industries'*, *'Auditorium Desing & Acoustics'*, and so much more.

An invitation only summit for the AV industry's C-Suite, **AV Leaders Connect**, allowed the leaders to share intelligence and

discuss geopolitical and economic concerns, emerging technology trends and disruptions, and identify growth opportunities. The programme covered a panel discussion on *'The Customer Perspective: Evolving Expectations and Requirements in the AV Market'* on first day of the show.

NIXT (Next Integrated Experimental Technology) Summit, one of the key programmes at the Infocomm India 2023 illustrated on the successes and challenges of digital transformation practices in the education sector. It included discussions on topics like – *'Tech in the Corporate World: Reshaping Business Operations in India', 'The Future of Work: Opportunities and Challenges', 'The Digital Evolution: Reshaping Education in India', 'Future-Proofing Education Embracing Challenges & Opportunities'*, and more. Not only that, but NIXT Summit also covered topics from the retail segment like *'Tech-Powered Retail: Transforming Shopping Experience in India', 'Emerging Technologies: Shaping*

Su Piow Ko, VP - AET Displays International and Jimmy Chan, Country Manager – India along with the team at the launch of AT55 video wall at Infocomm 2023

and innovative entrants in the industry. 18 first-time exhibitors, including **ALTEX Corporation, Arihant Infosys, Basssfx, Fohhn**

This year's show saw 160 influential hosted buyers from various government agencies, including education, healthcare, defence and security, smart cities and urban planning, tourism, transportation, and citizen services as indicated by Infocomm's official website.

the Future of Retail', etc. NIXT Summit also explored venues and live events segment in the pro AV world with topics like – *'Redefining Venues and Live Events with Digital Innovations', 'Emerging Technologies in Social and Religious Venues and Live Events and its Impact on Growth of the Same'*, and more.

Taking the event ahead, **Industry Forums** at Infocomm 2023 addressed key industry outlooks and the advancements in tech adoptions. The sessions included topics like *'India Future Ready – Safety and Cyber Security Planning Considerations for Government Installations', 'The Urbanisation Challenge for India – Expectations and Roadmap', 'Transformation of an Indian City'*, and *'SMART CIO 2030: Usage of Big Data & Data Science for Enterprise Scalability', 'Digital Transformation Driven Through AI'*, and more.

New Entrants and Innovations in the AV Market

Infocomm 2023 featured various new

Audio AG, Shree InfoTech, Softlogic, and **Vestel Visual Solutions**, made their first InfoComm India appearance as reported

by Infocomm's official website. Among the well-established brands that showcased their latest offerings were **BenQ's Google EDLA-certified board**, **Christie's unique foldable LED screen**, ViewSonic's "UNIVERSE" metaverse-based education solution, and many others. Moreover, **AET** unveiled its latest innovation, the **AT55 Inch Video Wall**, at Infocomm 2023. The newly launched AT55 features a schematic standard 2K resolution splicing a 170° ultra-wide viewing angle and IP65 front panel protection. It provides a pixel density of 629,882 pixels per square meter and a frame rate ranging from 30 to 120 Hz. Its ultra-high refresh rate exceeds 3840 Hz, making it ideal for demanding applications. In addition, it features an IP5X rating, ensuring reliable performance even in challenging environments.

Pink Noise Professionals booth at Infocomm 2023

M Kumar, Business Head – India & GCC region, Hyundai IT at Infocomm 2023

Ceiling 2. **Naveen Sridhara**, Director of Sales, Business Communication at Sennheiser India, said, "We are delighted to participate this year as well at InfoComm 2023 and give visitors the first glimpse of TeamConnect (TC) Bar Solutions. InfoComm offers us an opportunity to showcase our TeamConnect and Evolution Wireless Family in the Indian market. We consider InfoComm as one of the best platforms to connect with the audience and boost brand visibility from the Business Communications perspective."

Many more brands from the pro AV industry exhibited their products at the show with the aim to lead innovations in the Indian pro AV market.

Hosted Buyers

This year's show saw 160 influential hosted buyers from various government agencies, including education, healthcare, defence and security, smart cities and urban planning, tourism, transportation, and citizen services as indicated by Infocomm's official website. Additionally, there were also buyers from the construction and tech

AERO Digital World showcased their life-sized holographic display, a solution made for museums and similar contexts, as well as two new prototypes for market testing.

Pink Noise Professionals, a system integrator and distributor, also introduced their very own brand **ErthPot**, offering audio technologies and conferencing solutions.

M Kumar, Business Head – India & GCC region, **Hyundai IT** announced that the company participated in InfoComm India to advance into the next-generation infrastructure and smart digital signage business in India, among the 10 major projects of Vision 2030 led by the Indian government. The main product lineup presented by Hyundai IT at InfoComm India was **P1.2 LED screen** finest pixel pitch and **Zero-bezel LCD video wall** display solutions for control & command room applications and general companies, Android 13 version electronic interactive whiteboard display for building smart schools, 55" OLED transparent display for museum applications to add the wow factor and outdoor display for railways and metros, door PIDS (Passenger Information Display System), and more.

A&T Video Networks, one of the home-grown leaders in India's Video Conferencing (VC) sector, launched six 'Make in India' professional-grade VC products at Infocomm 2023, including cameras that feature AI driven 'gesture control', demonstrating the company's R&D and design capabilities in advanced technologies. The newly launched VC products included **Air 200** and **Air 500** speakerphones for conference rooms, PTU series and PTC series professional cameras for classrooms, auditorium and seminar halls, and Klick U2 and Aviz 4K cameras for board rooms and conference rooms. All the video conferencing systems integrate with existing VC software and workflows, creating a seamless experience across conference rooms.

(To view full press release, see page 30)

Sennheiser presents TeamConnect Bar Solutions at Infocomm India 2023 for the first time

Sennheiser showcased products from the **TeamConnect Family** and its recently launched **TeamConnect (TC) Bar Solutions** at the event first time in India. The TeamConnect Bar Solutions cater to small (TeamConnect Bar S) and mid-sized (TeamConnect Bar M) meeting and collaboration spaces. For small and medium-sized rooms, there are TeamConnect Ceiling Solutions (TeamConnect Ceiling Medium), and for larger and medium-sized rooms, there's TeamConnect

industries who were seeking the latest innovations to enhance growth and user experience.

At the close of the show, the total exhibition space rebooked to 2024 edition surpassed this year's net square metres by 7.5% as reported by Infocomm on its official website. Next year's event is expected to occupy JWCC Pavilions 1 to 3, along with an expanded show floor at Jasmine Hall as reported.

9401A SYSTEM MANAGEMENT DEVICE BRINGS AOIP NETWORKING TO GENELEC'S UNIO PLATFORM

Genelec, one of the global leaders in professional audio monitoring solutions, has further expanded its **UNIO Audio Monitoring Service Platform** with the introduction of the **9401A System Management Device** for Audio-over-IP Networking. The 9401A adds powerful AoIP connectivity to Genelec's range of Smart Active Monitors and Subwoofers in

software allows entire system calibration, including subwoofer alignment and support for bass management. The 9401A's separate subwoofer output enables Smart Active Subwoofers to be easily chained to increase the low frequency SPL output, and channel capacity can be quickly expanded with more 9401A devices, to provide compatibility with 22.2 and other

ing Gigabit Ethernet for low latency, the 9401A supports the ST2110 broadcast suite with ST2022-7 redundant network connectivity and NMOS integration to enterprise management and automation systems. Designed for decades of reliable service and built to the highest environmental standards at Genelec's factory in Iisalmi, Finland, the 9401A also supports

Bringing convenience and flexibility of multi-channel networked audio to the UNIO platform with Genelec 9401A System Management Device

ST2110, AES67 and Ravenna formats. With its 16 monitor outputs, the 9401A supports all formats from stereo to 9.1.6, and brings all the convenience and flexibility of multi-channel networked audio to the UNIO platform.

As a partner to Genelec's Smart Active Monitors and Subwoofers, the 9401A provides 16 channels of digital connectivity, plus dedicated subwoofer, and auxiliary stereo outputs, all via AES/EBU. The auxiliary output serves as an ideal feed for headphones, enabling binaural and secondary stereo loudspeaker monitoring, while the 9401A's tight integration with Genelec Loudspeaker Manager (GLM)

high channel count immersive formats.

In addition to its AoIP networking capabilities, loudspeaker management and calibration is achieved via the proprietary GLM network connectivity of the 9401A. Tactile control of the entire monitoring system can then be achieved via the new 9320A Reference Controller, which acts as a bridge to the UNIO platform and provides instant one-click access to a vast number of monitor features built into the Smart Active Monitoring family.

Performance wise, the 1U rack-mounting 9401A is compatible with sample rates from 44.1 kHz to 192 kHz, using 16-, 24-, and 32-bit resolution per sample. Employ-

proprietary Intelligent Signal Sensing (ISS) technology, for lower power consumption.

Genelec Managing Director, **Siamäk Naghian** comments, "With the UNIO platform, we're providing audio professionals with a bridge between in-room loudspeaker and personal headphone monitoring, so that they can move seamlessly between the two with no interruption in workflow. Now, with the 9401A device, we've brought the networking power of AoIP to our range of Smart Active Monitors and Subwoofers – once again showing how Genelec solutions represent a secure and future-proof investment in professional monitoring."

Q-SYS LAUNCHES ZERO-BEZEL MODELS OF ACOUSTICDESIGN SERIES LOUDSPEAKERS

Q-SYS, a division of QSC LLC, announced a "zero-bezel" refresh of the 4-inch and 6-inch **AcousticDesign (AD) Series** ceiling loudspeakers.

The new models, including the AD-C4T-ZB, AD-C4T-LPZB, AD-C6T-ZB, and AD-C6T-LPZB, feature a white grille without a bezel, designed to meet the architectural needs of modern applications while preserving the premium acoustics that the AD Series is renowned for. Additionally, retrofit accessories are

available to add the new grille to recent Q-SYS loudspeaker models (NL-C4, AD-C6T-HC, AD-C6T-HP), and black grilles are also available separately for all models.

"We are thrilled to announce the new

models that not only add a touch of modern elegance to any space, but also deliver the same premium audio quality that our customers expect from the AD Series," says **Dan Saenz**, Product Manager Loudspeakers & Amplifiers, Q-SYS. "With retrofit options available, we're making it easier than ever for our customers to keep their audio systems in line with the latest design trends."

AET LAUNCHES AT55" VIDEO WALL SERIES AT INFOCOMM INDIA 2023

AET, one of the renowned industry experts in fine pitch LED displays, unveiled its latest innovation, the **AT55 Inch Video Wall**, at Infocomm 2023.

The newly launched AT55 is a testament to AET with features like a schematic for standard 2K resolution splicing, a 170° ultra-wide viewing angle, IP65 front panel protection, HDMI connection, and multi-system compatibility. The dimensions of the AT55" Series measure 1209.6 x 680.4 x 28.4 mm, with a weight of 18.5 kg per cabinet. It provides a pixel density of 629,882 pixels per square meter and a frame rate ranging from 30 to 120 Hz. Its ultra-high refresh rate exceeds 3840 Hz, making it ideal for demanding applications. In addition, it boasts an IP5X rating, ensuring reliable performance even in challenging environments.

"At AET, our unwavering commitment to innovation drives us to bridge the gap between consumer demands and existing technology. The introduction of the AT55" exemplifies this dedication, as its distinctive features distinguish it from market competitors. As we venture deep into the Indian market, we are excited about the significant growth potential driven by increasing digitization. We aim to be at the forefront of this transformative journey, offering cutting-edge solutions to support businesses in the evolving landscape. India's rapidly expanding display market aligns perfectly with our mission to deliver technology that meets the dynamic needs of businesses and consumers," said, **Su**

Su Piow Ko, VP - AET Displays International and Jimmy Chan, Country Manager – India along with the team at Infocomm 2023

Piow Ko, Vice President, AET Display Ltd.

AET's AT series LED Displays have been specifically designed for indoor settings and offer versatile installation methods. These displays are perfect for control rooms that require prolonged viewing periods. Leveraging AET's cutting-edge QCOB Technology and achieving a high grayscale of up to 16 bits, the AT series excels in low-light environments. It comes in standard inch cabinet sizes, allowing operators to efficiently and easily replace and upgrade traditional LCD displays.

On the launch **Jimmy Chen**, Country Manager, India, affirmed, "We are com-mitted to aggressively expanding our B2B partnerships in India while keeping customer-centricity at the forefront of our strategy. As we embark on this exciting journey, we've therefore set the foundation with an extensive network of service centers across the country. At AET, we deeply understand the importance of swift and effective support for our clients, and we are here to meet their needs with heightened efficiency. Our objective extends beyond being a mere technology provider; we aspire to be a steadfast and committed partner in India's journey of digital transformation."

DIGITAL PROJECTION INTRODUCES TWO NEW LASER PROJECTORS AT INFOCOMM 2023

Digital Projection pushed the imaging boundaries with the introduction of two of its most advanced laser projectors to date at InfoComm 2023. The new **TITAN 41000 4K UHD** and **M-Vision 27000 WUXGA** projectors are packed with cutting-edge capabilities, including unprecedented brightness, vibrant colour rendering, a more compact footprint and improved, market-leading efficiency, for bright, accurate, lifelike images for a wide range of commercial environments.

A view of TITAN-47000 laser projector

Engineered with technology to support even the most demanding of applications, the M-Vision 27000 WU boasts 27,000 lumens output and 10,000:1 contrast ratio, bringing budget-sensitive applications a large-screen imaging solution and near 3-Chip performance at a 1-Chip price point. The new TITAN family of laser projectors, meanwhile, delivers up to 47,000 lumens at WUXGA and 41,000

DIGITAL PROJECTION INTRODUCES TWO NEW LASER...

lumens at 4K-UHD resolutions.

Titan 41000 4K-UHD & Titan 47000 WUXGA

The new model is 15% more efficient when measuring the lumens-per-watt output than the current TITAN and better than the closest competitor. Adding to the extended 40,000 hours illumination lifetime in ECO mode and the dust-proof, filterless design, the TITAN is designed to run with minimal fuss in 24/7 environments.

The extra power and capability have also been engineered into a much more compact chassis, meaning it is 27% brighter, 13.3% smaller, 7.4% lighter and 3dBA quieter than the current model. This regains the TITAN's position as the smallest, lightest, brightest, and quietest projector in its class.

Also new to the TITAN family is **Brightness Sync**, where embedded sensors monitor and automatically adjusts the brightness of individual projectors in

blended multi-projector installs to ensure that each projected image is perfectly matched. A standout feature of this high-end 4K-UHD (3840×2160) 16:9 laser projector is the use of both red and blue lasers to produce an exceptionally broad colour gamut. ColorBoost+Red technology enables the TITAN 41000-4K-UHD to produce crisp, clean, lifelike images, while the fast transit pixels ensure smooth greyscaling.

M-Vision 27000 WUXGA Laser Projector

M-Vision 27000 WU (1920×1200) embodies many of the same features as the TITAN but in a bright and budget-friendly 1-Chip DLP package. Outputting 27,000 ISO lumens, it is the brightest single-chip laser projector on the market and excels in environments with high ambient light. Following the design ethos of the TITAN, it too is 14.8% brighter and 9.2% lighter than its prede-

A view of M-Vision-27000 laser projector

cessor, with environmental considerations taken into account at every stage with a 23.8% light efficiency improvement over the previous M-Vision.

A complete suite of professional lenses now includes the brand new 0.38:1 UST lens with vertical lens shift, making it even more flexible for installations in tight spaces.

Poly Studio X52

Poly Studio X52 is an all-in-one video bar designed for medium sized meeting rooms. It comes with a monitor clamp for easy mounting above the display. Poly also provides an upgrade kit to use your existing Studio X50 installations when upgrading to Studio X52.

Main Features include:
- Sharp 4K, 20MP UltraHD camera with 95-degree horizontal field of view
- Hi-fidelity audio powered by built-in stereo microphones
- Poly NoiseBlockAI to eliminate background and extraneous sound
- Poly DirectorAI, which includes the new Perimeter preview feature
- Dual 4K30 video output

Technical Specifications:
- Video Standards and Protocols: H.264 AVC, H.264 High Profile, H.265, H.239
- People Video Resolution: 4K, 30 fps (TX and RX) from 2048 Kbps
- Camera: 110° DFOV, 95° HFOV, 5x digital zoom, UHD 2160p (4K) capture resolution
- Microphones: 2x MEMS microphones, plus 2x 2nd order microphones, Up to 20 ft of microphone pick up range, Optional expansion microphone available (p/n 2200-69631-001)
- Stereo speakers: Power Handling (RMS) 20 Watts, Power Handling (MAX) 40 Watts, Sensitivity 79 at 1-Watt 1 meter
- Network: IPv4, IPv6, 1x 10/100/1G Ethernet, Auto-MDIX, H.323 and/or SIP up to 6 Mbps running Poly Video App, Polycom Lost Packet Recovery (LPR) technology.
- Typical operating voltage/power – 37 VA @ 120 V @ 60 Hz, 37 VA @ 230 V @ 50/60 Hz, Operating Heavily Loaded: 25W, Idle/Sleep: 8W

Nureva HDL310

The HDL310 is your no-compromise alternative to all-in-one sound bars that have limited microphone pickup range and custom AV systems that are costly and complex. The HDL310 uses new algorithms that offer improved echo cancellation, speaker EQ and noise reduction, resulting in a better listening experience for remote participants.

Main Features include:
- Next-generation microphone pickup
- Simple, wall-mounted installation
- Tools to manage at scale
- Advanced Microphone Mist technology processing platform
- Acoustic echo cancellation
- Built-in sound masking

Technical Specifications:
- Microphones – 12 low-noise omnidirectional MEMS, frequency response at 94 dB SPL 100Hz to 7 kHz, total harmonic distortion (THD) 0.25% (typical)
- Speakers – 2 – 20W 4″ aluminum cone, acoustic output (hardware capable): 91 dB-SPL @ 1m, total harmonic distortion (THD) 0.25% (typical)
- Connect Module – 1 - USB 2.0 interface to computer or collaboration hub, type B, 1 - Auxiliary out 3.5 mm single-ended stereo jack, 1 - Auxiliary in 3.5 mm single-ended stereo jack, 2 - Connections to microphone and speaker bar RJ-45, 1 - Console Direct RJ-45 for connecting to network
- Interoperability – Plug and play compatibility with UC&C platforms
- Power rating – Universal switching 100-240V AC, 50-60Hz
- Power consumption – <30W

Crestron UC-B70-A-Z

The UC-B70-A-Z Crestron Flex tabletop conferencing system provides a medium to large room video conference solution for use with Zoom Rooms software. The UC-B70-A-Z features a 10.1 in. tabletop touch screen, Crestron Videobar 70 with intelligent high-definition video and audio, a PoE injector, and cables.

Main Features include:
- Intelligent high-definition video, immersive high-quality audio, built-in digital signal processer
- Native Zoom Rooms Controller touch screen UI
- Easy to deploy and install
- Network management and provisioning and system alerts through the XiO Cloud service
- Enterprise-grade security – connects and communicates securely over any enterprise or SMB network

Technical Specifications:
- UC-SB2-CAM-A-Z: Crestron Videobar 70
- PWE-4803RU: PoE Injector
- Speakers: (2) Dual 10-watt speakers, stereo
- Microphone: 24 MIC linear array
- Display Output Resolution: (2) 4K and (1) 1080p
- Connectors: HDMI port: (2) HDMI IN (Input 1 reserved for future use), (3) HDMI OUT; 3.5 mm Line in (reserved for future use) / Line out: (1) AUDIO IN, (1) AUDIO OUT; LAN: (2) 8-pin RJ-45 connector; USB A: (2) USB 3.0 Type A connector; USB C: (2) USB 3.1 Type-C connector (reserved for future use)
- Input Power: 19VDC via external 100 240VAC, 50/60 Hz power pack (included)
- Acoustic echo cancellation, dereverberation, automatic gain control, dynamic noise suppression, adaptive beamforming, speaker volume control, speaker EQ and limiting (fixed)

A&T UNVEILS 'MAKE IN INDIA' VIDEO CONFERENCING PRODUCT AT INFOCOMM 2023

A&T Video Networks, one of the home-grown leaders in India's Video conferencing (VC) sector, has launched six 'Make in India' professional-grade VC products, including cameras that feature AI driven 'gesture control', demonstrating the company's R&D and design capabilities in advanced technologies. The products, designed and manufactured at A&T's plant in Madurai, were launched at InfoComm India 2023, held recently in Mumbai.

The newly launched VC products are – **Air 200** and **Air 500 speakerphones** for conference rooms, **PTU series** and **PTC series** professional cameras for classrooms, auditorium and seminar halls, and **Klick U2** and **Aviz 4K** cameras for board rooms and conference rooms. They are ideal for mid-to-large conference rooms, large classrooms and auditoriums, and training halls. All the video conferencing systems integrate with existing VC software and workflows, creating a seamless experience across conference rooms.

The AI-based 'gesture control' technology of Aviz 4K enables people in conference rooms to adjust zoom in and zoom out functions of the camera just with their hand gestures. Besides, the 'wireless cascade' feature of Air 200 can be used to connect two speaker phones with each other without wires, thus ensuring that the conference room is clutter free.

Since A&T's products are designed and manufactured in India, they are competitively priced. The main benefit of A&T's solutions is that they come integrated with hardware and software. For example, when a hospital uses A&T cameras for surgery recording, the same recording can be stored on the company's cloud-based content management system for access at a later date.

Ashwin Desai, MD, A&T Video Networks, claimed on the official A&T website that India's VC market has been growing phenomenally in recent years. Sectors like

A&T team at the Infocomm booth India 2023

healthcare, education, and enterprises are showing great interest in the adoption of VC technology. However, the available imported products are not meeting their requirements, and those from the unorganised sector come with quality issues. He said, "We strive to make world-class features and technology work for Indian customers, and to offer VC solutions at Indian prices."

He further added that A&T Video Networks studies the use cases of video conferencing in various industry and design products that help to better user experience. The focus of its R&D team is to incorporate AI in the video conferencing products so as to enable hospitals to deliver better consultation experiences to equip educational institutes to provide better learning environments, and help enterprises hold more realistic video conferencing sessions.

As reported, Desai said that hybrid working is here to stay and has been the main factor for the boom in the VC industry. Besides, the Indian government is investing heavily in digital technology, including video conferencing and advances in areas like AI and virtual reality are creating new opportunities for the VC market.

Educational institutes are investing heavily in VC and lecture recording technology to connect students to experts from across the globe and to improve the learning outcomes of students. Hospitals and medical colleges are adopting VC for recording of surgeries for Continuing Medical Education programs and better outcomes for patients. Enterprises have made VC ubiquitous across their organisations. Instead of one or two video-enabled conference rooms, enterprises now boast VC-enabled huddle rooms, meeting rooms and medium-sized conference rooms in large numbers to enable their employees to collaborate more efficiently, quickly, and easily with teammates and customers across the globe.

The newly launched PTU MN Series features 4K Ultra HD AI Motion Tracking PTZ camera; 12X / 20X Optical Zoom, and USB+HDMI+SDI+RJ45 Interfaces. The PTC Pro Series consist of 1080P professional PTZ cameras; Tally lamp support, and USB+HDMI+SDI+RJ45 & NDI support. A top technical feature of KLICK U2 is its built in live streaming support. The speaker phones, AIR 200 and AIR 500 have dual Bluetooth USB dongle, 8 built-in mics and 8W speakers and wireless cascade feature.

UDAIPUR CITY PALACE COMES ALIVE WITH SPLAT STUDIO & DATATON

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

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

The Initial Conceptualization:

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

The team at Splat Studio was tasked with creating a short but mesmerizing opening sequence for the G20 Sherpa Meet, highlighting Rajasthan's culture and heritage, underlined with futuristic innovations that are helping the state move forward with a fusion of tradition and technology. Kumar comments on the brief Splat Studio received from the client, "G20 Sherpa's Meet needed an enthralling opening segment to highlight Rajasthan's rich cultural heritage, as well as the country's emerging technology ecosystem and commitment to sustainable devel-

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

opment goals. With the short brief provided, we were able to build a 5-minute show to mesmerize our delegates. This project was conceptualized and delivered in record 15 days, start to finish."

Channeling Challenges Into Unique Opportunities:

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

He adds, "Considering the audience seating arrangement was quite a challenge as the distance between seating and the facade was quite packed, also spread lengthwise, so there was no single point of view (for 3D projection to work, we have to have a single point of view) so visualization had to consider this. Also, because people were seated close and there was ambient light, the projection resolution and the projector luminosity was an important factor, and we decided to use the best available option for both of these variables."

But, the team's unending dedication towards the profession allowed it to turn these challenges into opportunities. Kumar shares how the Splat Studio team accomplished the same, "The complexity of the facade was the major challenge, and we needed considerable time to develop the template required to begin the work. But the team stayed overnight at the site and made every minute

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

count to bring the template to completion and ensure that the venue's limitations do not limit the precision and perfection of the 3D projection mapping."

Kumar adds that the audiovisual software and equipment used in the project played a major role in its success, "We used Barco UDX-4K40 projectors along with Dataton's

Watchout 6.6 mapping for the show. In order to cover the facade, six projectors were needed. However, to boost the illumination, we double-stacked the projectors, making the projector count reach to twelve."

The Trajectory For The Indian AV Industry:

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

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

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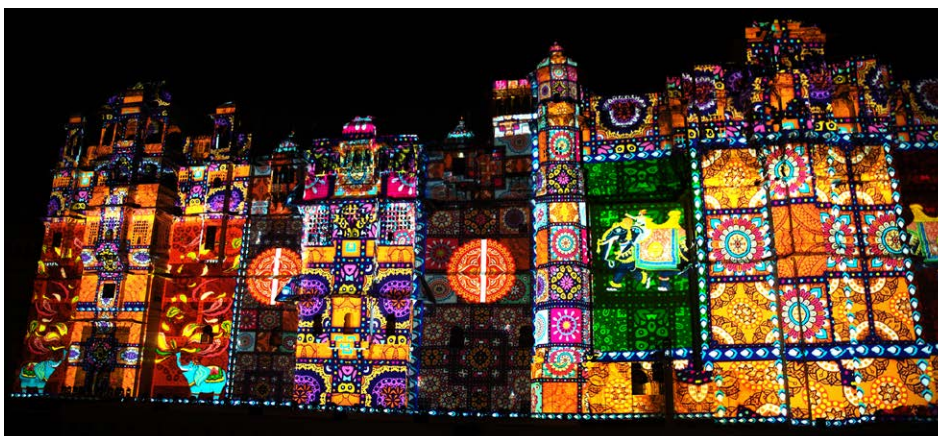
It took two days for Splat Studio to finish the 3D scanning for Udaipur City Palace's façade - the result was truly spectacular

AV INSTALLATIONS: GLIMPSES

Pixera Delivers Precise 3D Projection Mapping at India's Republic Day Celebrations

AV Stumpfl's **PIXERA** media server platform was on the front lines for Beating Retreat, the military ceremony at the heart of India's Republic Day celebrations, which this year transformed New Delhi with a cutting-edge projection-mapping experience synchronised with a drone display.

Marking the formal end of Republic Day, Beating Retreat 2023 featured a 3D anamorphic projection mapped onto the facade of New Delhi's secretariat buildings. It was the first time a show of its kind had been projected onto the imposing buildings,

which are central to Lutyens's Delhi, the historic capital district also home to Rashtrapati Bhavan, the presidential palace.

To ensure the stability and reliability crucial to delivering the demanding 14-minute show, which took place during what Wadhwa describes as "one of the most prestigious events that happens in India", **Modern Stage Services** turned to AV Stumpfl's multi-award-winning media server platform, PIXERA.

The show celebrated past 75 years of Indian history as well as present and future development of the country.

Christie Crimson Series Laser Projectors Illuminate Mumbai's Gateway of India

Christie announced that its high-brightness **Crimson Series 3DLP** laser projectors are delivering big, bright visuals for a new light and sound show at the Gateway of India, an iconic arch-monument built in the early 20th century.

The projectors were installed and commissioned by **E Factor**, one of the leading event planners that provide end-to-end solutions for the creation of unique experiences in India. A total of eight Christie Crimson

WU31 laser projectors were used for this permanent installation.

The E Factor team, in collaboration with Christie, designed and manufactured bespoke weatherproof enclosures for the Crimson WU31 projectors. To prevent automation failure, E Factor installed an external parameter reading system that provides digitalized readings in real-time.

The projectors housed in enclosures are then fitted on towers positioned 100 meters (328 feet) away from the monument.

Synergy Technologies Delivers Flawless Visual Experiences at MLF

Synergy Technologies has built a formidable reputation of offering world-class, high-performance visual technology

services. An intellectual property of the **Floating Canvas Company** and supported by the Ministry of Culture (Govt.

Of India); the **Mumbai Light Festival (MLF)** has been envisioned as a one-of-its-kind celebration of lights fixtured in Mumbai's cultural calendar. The 2023 project kickstarted with the **'MLF Satellite'**, teaser events meant to provide a glimpse of that magical space that lies at the intersection of art and technology – a sort of intimate prelude to build excitement for the much grander full-fledged MLF.

Considering the rather limited period of time allotted for setup and system check, team Synergy Tech swiftly deployed over 1200 sq.ft consisting of the 2.6mm

LED screens perfectly aligned and arranged to offer seamless panoramic viewing; with multiple units of the powerful and virtuous **Novastar MX40 Pro** deployed to offer comprehensive image processing, image adjustment and overall display control. Additionally, multiple units of 20K laser projectors from Christie were deployed to encapsulate the floor space in visually stunning artwork that offered a truly immersive experience; with matrix switching achieved through multiple units of **4K HDMI matrix routers** from **Lightware**, and **Dataton's Watchout**.

Synergy Technologies Maps Out 3D Projection at 152nd Annual Ceremony of Daly College, Indore

Indore's iconic **Daly College** is a centenarian co-educational residential and day boarding institution with a glorious history of promoting excellence in academics and co-curricular virtues. 2022 marked 152 glorious years of the institute's continuation; and to make the celebrations truly memorable, the institute's management spared no stone unturned in putting together a spectacle that would remain etched in the minds and hearts of all who gathered to witness the annual prize distribution ceremony and cultural programme.

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

The entire performance had to be synced in perfection to the visual content mapped onto the building – which together was expected to be a harmonious and consistent high-quality viewing experience for the audience.

Team Synergy Tech were also entrusted with the responsibility of creating all of the 3D projection mapping content in ultra-high-definition resolution to offer the best possible 'big-picture' viewing experience.

Genelec Loudspeakers Enrich Home Theatre Project in Southern India

In Karur, the textile capital of the Indian state of Tamil Nadu, one of India's premier industrialists recently built a luxury mansion for his family that includes a high-class home cinema fully equipped with **Genelec** loudspeakers.

The mansion – including the cinema – was designed by the **PR Design Group**, well known for its work in the high-end residential market. However, when it came to equipping the cinema space, the client turned to entertainment and smart home automation specialists, **Cinespa by Mark Technologies**.

Cinespa owner, **P.R. Srenivasan**, aka 'Sreni' said, "The client would have preferred to implement both Auro 3-D and Dolby Atmos formats – but actually, due to the A/C duct positioning, we didn't have sufficient height for loudspeaker placement for Auro 3-D, plus there was no rack space available outside the room, so our only option was for an actively powered system. Genelec was therefore, the ideal solution in a Dolby Atmos 9.1.6 format."

Cinespa installed a total of sixteen Genelec loudspeakers, including three S360s housed behind the screen, which act as the L/C/R system. The S360's fusion of reference-quality performance, high SPL and compact size makes it perfect for demanding film, post, and music production, including Dolby film mixing. Six powerful **AIW26 in-wall loudspeakers** blend seamlessly into the environment for transparent surround sound at the sides and rear of the room, whilst six **8340 smart active loudspeakers** are installed in the ceiling to complete the immersive 9.1.6 configuration.

LVPEI Health Institute Trusts Shure for Best-In-Class Audio for Medical Sessions

LV Prasad Eye Institute (LVPEI), Hyderabad, a World Health Organization Collaborating Centre for Prevention of Blindness, has chosen **Shure Microflex Advance Ceiling Array Microphone** to ensure exceptional audio during live case discussions and practical sessions. The Shure Ceiling Array Microphone will enable doctors, surgeons, and practitioners to focus on the most critical situations, without worrying about any technical disruptions.

The Microflex Advance array line combines beamforming technology with advanced digital signal to deliver unmatched performance for AV conferencing. It also offers voice lift and camera tracking that helps medical teams to teach and practice with complete freedom. Thanks to the new audio system installed in the institute, doctors will have exceptional audio without distractions such as holding a microphone, a runner boy for passing it, dealing with cables, or annoying echo sounds because in the healthcare industry, every detail matters.

The team in charge of upgrading the current equipment was impressed by the benefits the Shure Microflex microphones were bringing to the corporate environment. Their goal was to find a solution that could provide high-quality audio needed for discussing live cases and practical sessions, while respecting the aesthetics of the room. Shure's Ceiling Array Microphone surpassed their expectations and was the perfect system for their specific requirements.

PPDS UNVEILS NEW PHILIPS SIGNAGE 3000 SERIES QE-LINE

The all-new **Philips Signage 3650 QE-Line** from **PPDS** brings high-impact 4K Ultra HD performance using only half the energy (and half the running costs), thanks to PPDS' all-new **EcoDesign** methodology. PPDS recently announced the highly anticipated launch of the new **Philips Signage 3000 EcoDesign Series QE-Line**, delivering 4K UHD video and picture performance while running on half the power compared to non-EcoDesign models.

Continuing the rollout of one of the highly innovative, world-first hardware and software solutions into 2024, the slick and stylish Philips Signage 3650 EcoDesign is configurable to meet the needs of any environment with no additional hardware necessary.

Available now in 50", 55" and 65" variants, the portrait or landscape mountable Philips Signage 3000 EcoDesign Series can be installed around the world in schools, retail stores, hotels, cinemas, TV studios, and corporate offices, among others.

Manufactured with the environment in mind and utilising the latest in breakthrough hardware and software –developed both in-house and in partnership with market leaders, including advanced remote management – the **Philips Signage 3650 EcoDesign** consumes up to fifty per cent less power versus comparable models, while continuing to offer best-in-class 4K Ultra HD visual performance via a powerful 350 cd/m2 LED display.

Martijn van der Woude, Head of Global Marketing and Business Development at PPDS, commented, "At PPDS we take a circular approach to business, creating products that are more sustainable and energy efficient from the moment they are conceived, through the manufacturing process, their delivery and installation, all the way to the end of their extended first life – and beyond. We continue to work hard to develop new technology, and new manufacturing processes with improved logistics, to help our customers effortlessly make the transition into creating more sustainable business and learning environments. With the Philips Signage 3650 EcoDesign display businesses will benefit from instant environmental and cost benefits, while ensuring content always remains the centre of attention, whatever environment it's in."

Complete package

The Philips Signage 3650 EcoDesign has already been awarded the **EPEAT Silver Climate+ Ecolabel**, which measures the social and environmental impacts of products from extraction to end-of-life, certifying that it has met 100% of the climate criteria plus at least 50% of the existing optional criteria. It has also received among the industry's lowest energy label ratings for a high impact professional display, with EU Energy Label E rating on the 50" model, and D

rating label on the 55" and 65" models.

The Philips Signage 3650 EcoDesign also benefits from PPDS' strategy to significantly reduce wastage, including plastic from its packaging, with the Series delivered in 100 per cent recycled and recyclable materials. All plastic bags (including those for individual accessories and components in the box) have now been removed, while the use of polystyrene has been replaced with innovative cushioning made using 100 per cent recycled paper, maintaining the same high levels of safety and protection of the product.

Robert Hsu, VP Global Product Strategy at PPDS, commented, "It's estimated the world is losing 10 million hectares of forest each year due to deforestation. According to the *United Nations*, there are about 400 million tonnes of plastic waste produced every day, with around 8 million pieces of plastic making their way into our oceans every 24 hours. That is simply not acceptable, and it is

vital that companies like us remain committed to helping reduce that unacceptable statistic, and to make a difference for generations to come. Packaging is a small yet significant step that we can all get behind. I am proud of what we as a business have achieved so far, and the culmination of that work, together with outstanding quality, is evident with the new Philips Signage 3650 EcoDesign display."

Ready for impact

Mirroring other premium models, including the market favourite Philips Signage 3000 Series Q-Line, the Philips Signage 3650 EcoDesign is equipped with a powerful quad-core chipset ensuring smooth running and consistent performance. It joins PPDS' ever-growing Android SoC family of displays, and can be managed manually, or entirely remotely, using third party software or PPDS' range of in-house solutions.

This now includes **PPDS Wave** – the company's secure cloud ecosystem, providing advanced and effortless remote device management and content control for Philips Professional Display fleets of any size and in any location. Adding further sustainability opportunities, Wave can proactively monitor and address issues, even before they occur, while optimising performance and managing power schedules, screen brightness, and therefore energy consumption, of each display.

Harnessing the power of Android 10, the Signage 3650 EcoDesign is already equipped to extend into the future, with regular updates able to be added – either manually, or remotely via PPDS Wave, further increasing the lifetime of the display.

Never a dull moment

In the unlikely event of a content disruption, the Philips Signage 3650 EcoDesign also comes equipped with PPDS' 'FailOver' technology, ensuring the display never goes blank, switching automatically to the secondary input if the primary source becomes unavailable.

With SmartPlayer, content (video, static images, audio) can simply be saved onto

EPSON ANNOUNCED AVAILABILITY OF EPIQVISION ULTRA LS650 3-CHIP 3LCD SMART STREAMING LASER PROJECTOR

Epson, one of the best-selling ultra short throw projector brands in the U.S., announced the availability of **Epson EpiqVision Ultra LS650 3-Chip 3LCD Smart Streaming Laser Projector**. This new ultra short throw solution underscores Epson's commitment to meet

Epson's new smart streaming laser projector delivers an immersive experience for the users with 3,600 lumens of color and white brightness

today's demand for high quality, bigscreen entertainment in everyday living spaces at a range of prices. Designed with added convenience and flexibility, the Epson EpiqVision Ultra LS650 delivers up to 120-inch 4K PRO-UHD2 images, in a sleek, modern chassis that can be placed close to the wall, and with the Epson Setting Assistant app, setup and display size adjusting is easy. Utilizing true 3-Chip 3LCD technology with 3,600 lumens of color and white brightness,

the Epson EpiqVision Ultra LS650 delivers crisp, clear, and colorful images, even in brightly lit rooms and simply amazes every time it's turned on.

"With quality built-in sound and smart TV capabilities, the new Epson EpiqVision Ultra LS650 is the complete viewing package, providing a front-row seat to exceptional colour and amazing detail, without sacrificing picture brightness," said **Fernando Tamashiro**, Product Manager, Epson America, Inc. "As we expand Epson's best-selling ultra short throw lineup with the new Epson EpiqVision Ultra LS650, it will redefine today's living spaces where entertainment fits seamlessly into virtually any environment."

The Epson EpiqVision Ultra LS650 delivers an immersive experience for ev-

eryone, whether watching movies, shows and sporting events or gaming with family and friends. Expertly engineered with sound and performance in mind, the projector includes a 2.1 virtual surround system, designed exclusively for Epson by Yamaha, with a metallic speaker grille for enhanced acoustics. An eARC5 HDMI port is also available to easily switch to external AV receivers or soundbars with the projector's remote. The Epson EpiqVision Ultra LS650's smart TV capabilities make it easy to access popular streaming channels, including Amazon Prime Video, Hulu, Disney+, HBO, YouTube, and more, and even allows users to stream live TV and search with built-in Google Assistant.

Additional feature details include:

Exceptionally Sharp 4K Experience: 4K PRO-UHD2 uses advanced pixel-shifting technology and image processing to deliver amazing detail and clarity without sacrificing picture brightness.

Single-Cable Solution for Audio: One of the updated HDMI ports includes eARC5 support to transmit audio formats like Dolby Atmos or DTS5 to compatible AV receivers or soundbars, making it easy to switch audio between the projector's built-in speakers and other external audio devices.

SilverFlex Ambient Light Rejecting Screen: Available and sold separately in two sizes, 100-inch and 120-inch, these screens are engineered to redirect up to 90% of the ambient light to increase contrast and produce an astonishingly crisp picture.

PPDS UNVEILS NEW PHILIPS SIGNAGE... *Continued from page 35*

a USB or microSD card plugged directly into the display, while the integrated media player allows for playlists to be easily created and scheduled via the intuitive on-screen menu, ensuring the display remains active and opportunities are never missed.

Completing the Philips Signage 3650 EcoDesign's versatility, the displays also come with Bluetooth 5.2 and Wifi

ready via an optional CRD22 module, with conveniently positioned HDMI, DVI, VGA, RS232, RJ45, and USB connectors ensuring all eventualities and needs are covered.

Bart Wouters, International Product Manager at PPDS, said, "We are thrilled to introduce this new Philips Signage 3000 EcoDesign Series, one of the most powerful and sustainable digital signage

displays in the current marketplace. Our R&D teams have worked extremely hard, breaking down new technological challenges, to bring all the latest features, as well as advanced environment and energy saving features, to this product. The result is a display that comes without compromising on quality and without the running costs customers have come to accept."
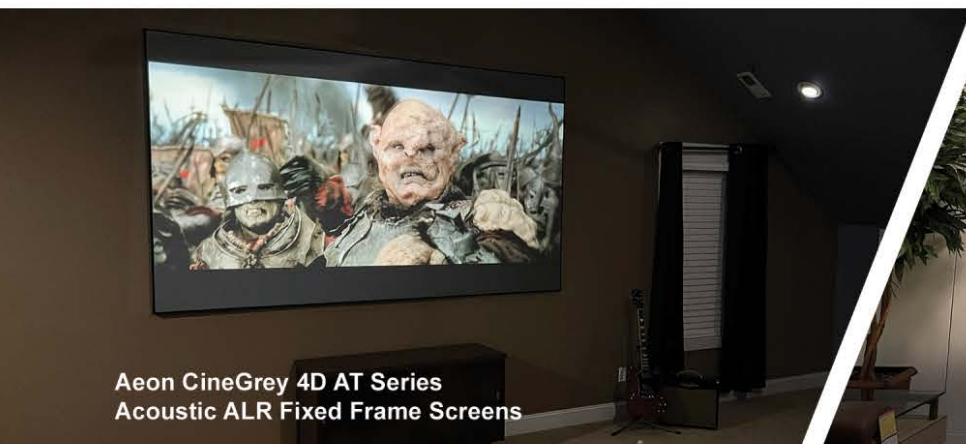
Kestrel Tab-Tension CLR®/ CLR® 3 Series
Electric Floor-Rising Screen
Undoctored images of actual projector presentation

CEILING AMBIENT LIGHT REJECTING PROJECTOR SCREENS FOR BRIGHT ROOM ENVIRONMENTS FROM ELITE SCREENS
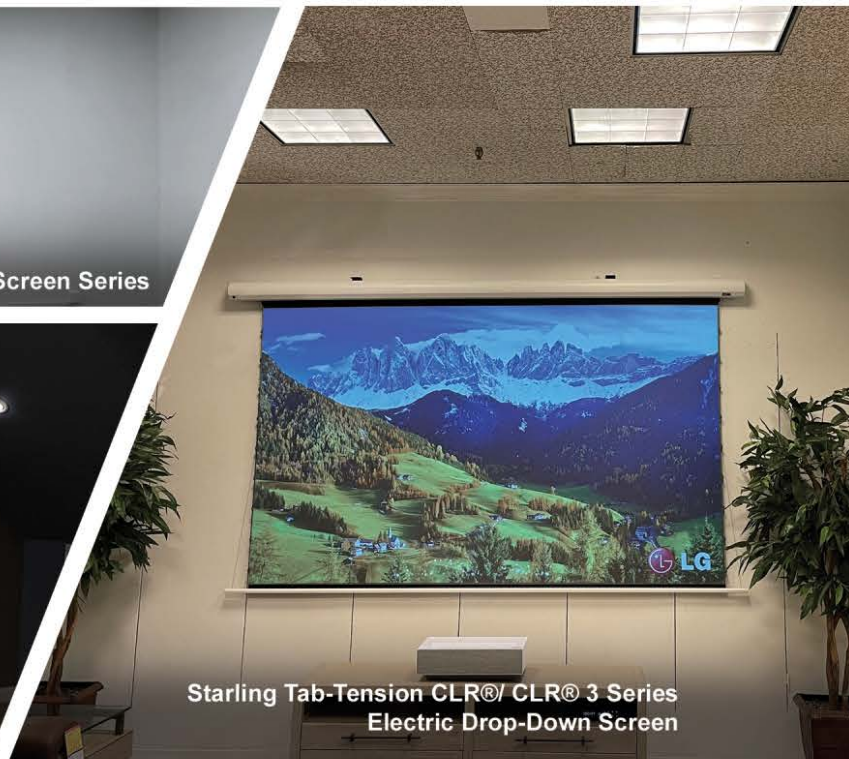
Available in various formats from motorized, fixed, and portable solutions.

Aeon StarBright CLR® 16 Screen Series

Aeon CineGrey 4D AT Series
Acoustic ALR Fixed Frame Screens

Starling Tab-Tension CLR®/ CLR® 3 Series
Electric Drop-Down Screen

Aeon CLR®/ CLR® 4 Series
EDGE FREE® Fixed Frame Screens