



# PALM EXPO MAGAZINE

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India's Live Sound  
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# CPA 3000

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- Channel space: 250KHz
- Frequency stability: ~0.005%
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- Power supply: 2\*AA batteries

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- Battery display on LCD
- S/N ratio: >105dB
- T.H.D distortion: <0.5%
- Frequency response: 20Hz-18KHz
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### ALAN WALKER DAZZLES SHILLONG WITH KG MOVIE'S PRODUCTION

Alan Walker's concert at the Shillong International Centre for Performing Arts & Culture in Mawkasiang marked a significant moment in the Indian leg of his *WalkerWorld*

global tour. Supported by **Sunburn Arena**, the event saw over 10,000 attendees captivated by a mix of live performances and cutting-edge production, including Walker's hits like "Faded," "Alone," and "Dark-

side." The night also featured a memorable collaboration between Walker and the Shillong Chamber Choir on his track "Children of the Sun."

Production for the event was led by

**KG Movie**, a respected technical solutions provider in eastern India. The team delivered a seamless audio-visual experience, utilising state-of-the-art technology to elevate the event to global standards.

KG Movie deployed 24 units of the **d&b Audiotechnik KSL line array** as the main FOH system, providing pristine sound coverage across the vast venue. This was complemented by **20 SL-GSub subwoofers**, delivering impactful low-end frequencies. To ensure consistent sound for all attendees, the team added d&b Audiotechnik **V Series** modules as outfill reinforcement.

"Deploying the KSL as the main house system and the



KG Movie's technical prowess shines at Alan Walker's concert in Shillong

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### EXPLORING NEXT-GEN AUDIO SOLUTIONS WITH WAVES AUDIO & ANSATA

As the audio industry evolves, three standout products – the **Waves eMotion LV1 Classic console**, **RME's MADiface XT II audio interface**, and the **DPA 2061 Omnidirectional Miniature Microphone** – are setting new standards for live and studio sound with advanced functionality and pristine audio quality.

#### Waves eMotion LV1 Classic: High-Performance Live Mixing Console

The eMotion LV1 Classic represents Waves' foray into fully integrated live mixing, catering to the needs of live sound engineers worldwide. Distributed exclusively in India by Ansata, the LV1 Classic combines cutting-edge technology with a familiar console layout, creating an intuitive experience ideal for various settings, from houses of worship to large concert venues.

Powered by a double-precision 32-bit floating-point mix

engine, the LV1 Classic provides exceptional sound clarity and ample headroom over a frequency range of 44.1 to 96 kHz. This live mixing console supports 64 stereo channels and 44 stereo buses, offering versatile routing and mixing options for intricate setups. An innovative feature is the inclusion of 16 Waves Signature Preamps, known for their discrete analogue circuitry, low noise levels, and fast transient response, allowing sound engineers to choose between transparency or harmonic enhancement as desired.

**Waves eMotion LV1 Classic for fully integrated live mixing**



The console's user interface pairs a 21.5-inch multi-touch screen with tactile controls, including Alps motorised faders and precision encoders, designed for ease of use by both experienced professionals and new users. The software architecture offers deep customisation of mixer and channel views, supported by dual independent software mixer windows, enabling engineers to access various functions simultaneously.

Processing capabilities are enhanced with built-in Waves processors, including dynamic EQ, vocal pitch correction, feedback control, and analogue saturation effects. Additionally, the LV1 Classic can be upgraded to utilise Waves' expansive library of over 160 live-optimised plugins, allowing engineers to meet the demands of any performance. Its scalability through IONIC stageboxes, extra I/O options, and DSP expansions further boosts

its versatility, making the LV1 Classic suitable for both mobile and fixed installations.

#### RME MADiface XT II: Comprehensive Audio Interface for Live and Studio Applications

The RME MADiface XT II is a 394-channel, 192 kHz USB 3.0 audio interface tailored for live sound and studio production. Building on the MADiface XT's legacy, the XT II includes refined digital and analogue circuitry, resulting in improved signal-to-noise ratio, reduced total



The RME MADiface XT II audio interface

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## NX AUDIO EXPANDS HARMONY SERIES WITH ADVANCED LIVE MIXERS

Nx Audio introduced new models to its **Harmony Series Live Mixers**, enhancing its range of compact analogue mixers renowned for their advanced features and robust build quality. Designed for professional applications, the Harmony Series delivers exceptional audio performance through its studio-grade discrete PRE preamps, ensuring rich bass tones, clear highs, and low distortion.

The Harmony Series includes dual digital multi-effect processors, offering 31+16 editable digital effects to enhance sound depth and atmosphere. It also features 100mm premium faders for precise control and greater headroom, a 9-band graphic equaliser, and USB recording capabilities. These features make the Harmony Series ideal for various applications, from enhancing

speeches to live band performances.

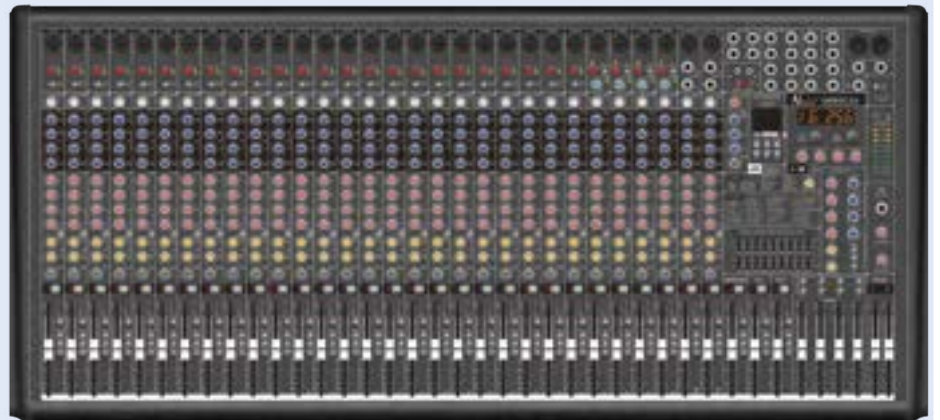
The high-quality reverb and delay expand the spatial quality of the sound with remarkable realism and naturalness. Following the success of earlier models such as the **HARMONY12** and **HARMONY16**, the **HARMONY20** was unveiled at **PALM Expo 2024**, marking a milestone in the series.

This model was designed to meet the needs of larger setups while retaining the compact form and reliability the Harmony Series is known for.

In a significant expansion, Nx Audio has now launched 4 Bus Models, the **HARMONY32.4** and **HARMONY24.4**, offering enhanced functionality for professional audio setups.

### Specifications of the New Models

- **HARMONY32.4:** Features 30 XLR



Nx Audio's Harmony 4 Bus Mixers receive multiple upgrades

mono inputs, 1 stereo line input, 6 auxiliary sends, and dedicated compressor control on 4 channels, along with a 12V lamp socket for added convenience.

- **HARMONY24.4:** Includes 22 XLR mono inputs, 1 stereo line input, similar auxiliary and compression controls, and the same compact yet durable design.

The Harmony Series is perfect for enhancing your mix, whether adding depth to a speaking engagement

or breathing new colour and atmosphere into a live band performance.

Nx Audio's Harmony Series continues to set a high standard for analogue mixers, offering an unmatched combination of audio quality, practicality, and durability. With its expanded range, the Harmony Series is well-equipped to meet the evolving demands of live sound and studio production professionals.

## ALAN WALKER DAZZLES SHILLONG WITH KG... (Continued from page 06)

V series as the fill reinforcement allowed us to ensure clarity and consistency in sound across the arena," explained **Joyjeet Pandey**, the system engineer for the event. On stage, V Series modules paired with **B6 subwoofers** were used for monitoring, creating an immersive environment for the performers. The FOH sound was finely tuned using a **DiGiCo SD10 digital mixing console**, which offered precise con-

trol over the dynamic performance.

The concert's visual setup featured over 2,000 square feet of **Absen 3.9mm outdoor LED video walls**, creating a vibrant backdrop for Walker's performance. Complementing this, the lighting design included **36 HULK BSW units**, **24 Moving PYXIS Atomic Hybrid Strobes**, and other advanced fixtures from **LBT**. The lighting rig was expertly controlled using the

**grandMA 3** full-size console, with a **grandMA 2** console serving as a backup.

**Manoj Singh**, director and CEO of KG Movie, described the experience as a convergence of technical precision and creative vision:

"Alan Walker's concert in Shillong was not only a testament to the power of music but also a showcase of production excellence. Every aspect of the event was designed to create

an unforgettable experience."

**Karan Singh**, CEO of **Sunburn**, echoed this sentiment, calling the concert "truly unforgettable" and highlighting the collaboration between local and international talent.

This event not only set a new benchmark for live performances in the region but also demonstrated the transformative power of technology in creating world-class experiences.



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**Ai  
CHIP**

**1000 ft  
RANGE**



**DUAL  
CHANNEL**

**50mv  
RF POWER**



### MARTIN AUDIO POWERS FESTIVE SOUNDS AT ZAVERAT 2024

The **Zaverat 2024 festival**, hosted at the VRYM Ground in Anand, Gujarat, showcased a captivating blend of traditional and modern music, energised by the renowned **Martin Audio** sound system. Provided by **Hardia Sound & Lights**, the system delivered an immersive audio experience for the event, which featured Garba and Dandiya Raas performances and a

devotional set by artist **Juket Patel**.

At the core of the sound system was Martin Audio's WPL line array, a 3-way design known for its clarity and expansive coverage. The high and mid frequencies brought intricate folk melodies to life, while the **SXH218 hybrid horn/reflex subwoofers** handled low-end frequencies with precision, complementing the dynamic beats

of traditional instruments such as the dhol and tabla. The system was powered by **iKON iK42 amplifiers**, ensuring efficient performance even during peak output. All equipment was sourced from **VMT Distribution**.

**Dinesh Nathulal Hardia**, Director of Hardia Sound & Lights, shared his enthusiasm: "The **Martin Audio WPL system** has taken our business to

new heights, enabling us to deliver top-tier sound quality at every event. For The Zaverat 2024, we needed a system that could handle the scale and energy of the event and the WPL did not disappoint. Its clarity and coverage ensured every corner of the Garba Ground was filled with vibrant, dynamic sound."

Adding to the technical perspective, **Palkesh Hardia**, System Engineer at Hardia Sound & Lights, remarked: "The WPL system exceeded all expectations during The Zaverat event. It was incredibly easy to set up, and its performance throughout the event was flawless. The precision in sound distribution allowed us to cover the entire venue without any weak spots, and the SXH218 subs delivered that perfect low-end impact. Working with **Martin Audio's iKON iK42 amplifiers** ensured the system ran efficiently, even at high outputs."

The success of the event highlighted the capabilities of Martin Audio's advanced systems in large-scale outdoor settings, combining technical excellence with robust performance to support cultural celebrations on a grand scale.



**Martin Audio Delivers at Zaverat 2024 with VMT Distribution and Hardia Sound & Lights**

### EXPLORING NEXT-GEN AUDIO SOLUTIONS WITH WAVES... (Continued from page 06)

harmonic distortion (THD) during analogue-to-digital conversion, and increased line output levels up to +24 dBu. The headphone output has also been upgraded to +19 dBu, offering greater headroom and flexibility for monitoring.

Supporting diverse connectivity needs, the MADiface XT II offers two mic/line preamps, two balanced XLR outputs, a stereo headphone output, and extensive digital signal options, including MADI (coaxial and optical), MIDI, AES, and word clock. The analogue mini-DIN socket has been replaced by an ARC USB port, enabling remote control via the optional ARC USB remote.

The MADiface XT II's TotalMix FX DSP mixer offers latency-free monitoring with added effects, including EQ, dynamics, reverb, and delay. Additionally, RME's SteadyClock FS technology ensures minimal jitter and stable clocking with femto clock precision, providing clean

signals even at low frequencies. The Class Compliant mode enables USB 3.0 support, allowing transmission of all 394 channels without proprietary drivers.

Enhanced by the ARC USB remote, which features illuminated buttons and an encoder wheel, the MADiface XT II offers easy access to TotalMix FX's core functions. The new Room EQ function optimises output channels with nine parametric EQ bands, making it an ideal solution for complex setups, surround sound, and live productions.

#### **DPA 2061 Omnidirectional Miniature Microphone: Precision Audio Capture in a Compact Design**

Designed to capture the human voice with clarity and authenticity, the DPA 2061 Omnidirectional Miniature Microphone offers engineers the flexibility to achieve high-quality audio in diverse live and studio envi-



**The DPA Miniature Microphones captures sound during live performances**

ronments. With an omnidirectional pattern, the 2061 can capture sound accurately without requiring exact placement, making it suitable for use on performers' chests, foreheads, or cheeks. Its frequency response ranges from 20 Hz to 20 kHz, with an effective range of 50 Hz to 16 kHz,

and includes a subtle boost between 8 and 16 kHz to deliver a balanced, clear output.

Constructed to endure demanding conditions, the 2061 microphone is IP57-rated for water and sweat resistance. This durability, combined with its compact design, makes it well-suited for theatre, broadcast, and live event applications. Weighing only 10 grams, the microphone is discreet without sacrificing performance. It includes a secure mounting clip in black and white options, enabling quick setup and secure positioning.

With a nominal sensitivity of 6 mV/Pa and a dynamic range of approximately 102 dB, the DPA 2061 handles sound levels up to 137 dB SPL, allowing it to capture high-volume sources without distortion. The 2061 supports various connectors, including TA4F Mini-XLR, 3-pin LEMO, and Mini-Jack, enhancing compatibility across different wireless systems.



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# MIXING MAGIC: HI-TECH AUDIO & DIGICO INTRODUCE MATT NAPIER'S SOUND EXPERTISE TO INDIA

Aspiring sound engineers from Mumbai attended the engaging event, which featured esteemed monitor engineer **Matt Napier**. Known for his work with global icons such as **Madonna** and the band **Muse**, Napier led an insightful, hands-on workshop on live music mixing and monitoring. He shared his expertise, taking attendees through his career journey, including his early transition to digital mixing in the early 2000's. Drawing on his experience as a monitor engineer, he highlighted the unique challenges and the critical role a monitor engineer plays in crafting the artist's in-ear experience.

Napier described the monitor engineer as an essential "interface between the artist and the audience," stressing the responsibility of this role in maintaining consistency and quality. He explained that similar to FOH engineers, monitor engineers must regularly step into the audience's perspective to evaluate and refine their work, aiming to pre-empt needs and ensure a seamless experience. Emphasising the importance of consistency, he noted, "The sound should sound the same as an album," underscoring that familiarity and high quality are paramount for artists and audiences alike.

Napier delved into a case study, recounting his experience on a Madonna theatre tour where replicating album-quality sound in a live setting presented unique challenges. He provided practical techniques for bridging the gap between studio sound and live performance. This set the stage for an engaging hands-on session, where attendees worked directly with a DiGiCo console under Napier's guidance, gaining invaluable real-world skills.

For Napier, communication is central to successful sound engineering: "Communication in the show is crucial, and how you get everyone talking is really good too," he stressed. A



**Matt Napier, an Engineer who elevates the art of Mixing, was introduced to India by Hi-Tech Audio & Image and DiGiCo in Mumbai, Bangalore and New Delhi**

well-coordinated team, he explained, can make the difference between a good show and an exceptional one. Reflecting on his early FOH days, he offered a timeless piece of advice: "Second, third song in the show, just go stand in front of the audience stop being a sound engineer and go and be a member of the audience." This practice helps engineers experience the mix as the audience would, often leading to fresh insights on potential adjustments.

As part of the masterclass, Napier recommended the popular YouTube channel *fohtv*, specifically highlighting a tutorial on compression techniques by sound engineer **Mollie Autherson**, further enriching the learning experience for attendees.

### DiGiCo's Growth in India: Key Trends, Challenges, and the New 326 Console

During the event, the *PALM Expo*

*Magazine* team also spoke to **James Baker**, Senior International Sales Manager at DiGiCo. Baker discussed the Indian market for digital audio, touching on its challenges and the latest product developments from DiGiCo. Noting the market's rapid growth, he described it as "a hockey stick" trajectory, indicating swift and substantial adoption of audio technology in India. "There's a lot more quantum consoles being sold into India now," he observed, emphasising DiGiCo's expanding presence in the region.

Baker also discussed DiGiCo's recent release, the 326 Console, a compact, two-screen version of the 338, retaining the same power in a streamlined design. "We've literally just done the 326," he confirmed, while noting that further releases remain confidential.

Addressing market-specific challenges, Baker shared that while each

region has unique dynamics, DiGiCo faces no challenges in India that it hasn't encountered in other markets. He affirmed DiGiCo's global reach and commitment to delivering solutions for both established and emerging markets.

In planning and executing this remarkable tour the Senior Application Engineers team at Hi-Tech Audio & Image, consisting of **Piyush Joshi**, **Satyam Rajvanshi**, and **Ma-hesh Kambli** (Senior Product Manager), played a pivotal role. Their combined expertise and meticulous approach in designing the tour ensured a seamless experience for attendees across multiple cities. Each member of the team contributed to conceptualising the tour with a deep understanding of the professional needs of India's sound engineering community. Their dedication ensured that the events not only showcased the advanced features of DiGiCo's Quantum consoles but also offered a hands-on learning experience tailored for the Indian market.

Reflecting on this milestone, Hi-Tech Audio & Image's Managing Director, **Nirdosh Aggarwal**, shared his perspective at the Bangalore leg of Napier's tour: "Hosting Matt Napier's session in India is a proud moment for us at Hi-Tech Audio & Image. Bringing an industry expert of Matt's calibre not only enriches our community's technical knowledge but also deepens their practical understanding of advanced audio engineering. These educational seminars provide invaluable hands-on experience, bridge knowledge gaps, and empower our participants to elevate the standards of live sound and studio production in India. We are committed to fostering such learning platforms, helping our professionals stay at the forefront of audio innovation and excellence."



**Matt Napier Highlights the Power of DiGiCo's Quantum 338 Console during his workshop**



## Bridging Borders in Audio Engineering: Rajan Gupta on DiGiCo's Event

**Rajan Gupta**, Managing Director of Hi-Tech, commented on introducing Matt Napier to the Indian audio industry. The event, he explained, aimed to foster collaboration and knowledge-sharing between

international and Indian audio professionals. "He is one of the finest engineers, monitor engineers worldwide. And for him to share his experience, workflows, newer function features the way they operate on the rest of the world because the rental industry in India is changing." Gupta emphasised the importance of Matt's session in providing valuable learning opportunities for

Indian engineers.

Gupta views this event as the beginning of a sustained effort in knowledge-sharing, with DiGiCo planning more such sessions in the future. He added, "DiGiCo is one of the most widely accepted consoles worldwide as in India," signalling a continued commitment to enhancing audio engineering expertise across borders.

Napier conducted an interactive session with the DiGiCo console, allowing engineers to explore settings and refine their mixes. He offered tips and insights from his career, including lessons learned from past mistakes and strategies he employs to deliver consistently high-quality mixes.

The session concluded with a panel discussion featuring James Baker, Matt Napier, and renowned sound engineers **Bruce Rod** and **Lee Braganza**. They discussed the nuances of live sound engineering, including team communication and managing the dynamic flow of a live show. Enthusiastic engineers posed technical questions and inquired about the qualities that distinguish an exceptional sound engineer. The panellists responded with positivity and encouragement, wrapping up an engaging and educational workshop.



The workshop in Mumbai, attended by eager Sound Engineers

**NUTRON<sup>+</sup>**  
Dynamic Audio Solutions

**BIG DIGITAL DISPLAY WITH  
LIVE RECORDING & ECHO EFFECT**



MODEL	RXA - 350 DP ECHO	RXA - 185 DP ECHO	RXA - 150 DP ECHO
Power Output	300W Max, 300W RMS at 10% THD	200W Max, 175W RMS at 10% THD	150W Max, 150W RMS at 10% THD
Input Channel	6x Mic./Line / 4/70V, 2x Aux 100mV / 70V/50V Line to 5V / 50V	4x Mic./Line / 4/70V, 2x Aux 100mV / 70V/50V Line to 5V / 50V	4x Mic./Line / 4/70V, 2x Aux 100mV / 70V/50V Line to 5V / 50V
Digital Player	MP3 Player, Recorder / FM Radio with Remote control USB / SD Card & MMC Card Reader with Bluetooth		
Frequency Response	50-15000Hz ± 3dB	50-15000Hz ± 3dB	50-15000Hz ± 3dB
Tone Control	Bass ± 10dB at 100Hz, Mid ± 10dB at 1KHz, Treble ± 10dB at 10KHz		
Echo	Delay & Repeat control for echo (Mic 1 & Mic 2)		
Out Put	Line Out 5V / 1KΩ, Preout 200mV / 600Ω		
Output Regulation	≤ 2dB no Load to Full Load at 1KHz		
Signal to Noise Ratio	60dB		
Speaker Outputs	20, 40, 80, (for direct connection) 70 & 100V Line (for use with LMT)	40, 80, 160 (for direct connection) 70 & 100V Line (for use with LMT)	40, 80, 160 (for direct connection) 70 & 100V Line (for use with LMT)
Power Supply	230V AC, DC 24V (2x2 Car Battery)	230V AC, DC 24V (2x2 Car Battery)	230V AC, DC 12V (2x2 Car Battery)
Cooling	DC Fan Cooling		

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## SNL PRO ENHANCES LIVE SOUND WITH YAMAHA'S FLAGSHIP RIVAGE PM10 SYSTEM

**Sound & Light Professionals (SNL Pro)**, based in Mumbai, is one of the most renowned names in India's live sound industry. Established in 1999, SNL Pro has grown to become a trusted partner for over 14,000 events, collaborating with global and local artists such as **Post Malone, Ed Sheeran, Lollapalooza, and Diljit Dosanjh**. With major upcoming performances by **Coldplay** and **Bryan Adams**, the company's dedication to exceptional sound production remains unwavering.

Recently, SNL Pro added **Yamaha's Rivage PM10 mixing system** to its touring inventory, a strategic investment underscoring its commitment

to delivering cutting-edge live sound experiences. The system was acquired through **Dev Electronics**, Yamaha's local partner in India.

### The Rivage PM10: Technical Excellence in Live Sound

The Rivage PM10 represents Yamaha's flagship offering, providing an ideal balance of technical sophistication and ease of use. SNL Pro's new setup includes:

- **PM10 surface** for intuitive control.
- **DSP-RX-EX engines**, enabling 288 inputs, 72 mix outputs, and 36 matrix buses at a 96kHz resolution.
- **RPIO622 rack** offering 72 mic/line inputs and 40 outputs for scalable, high-quality sound reinforcement.

- Integrated **MADI** and **Waves plugins**, which expand the system's creative and functional possibilities.

The system also features Yamaha's proprietary **Silk processing**, a tool that enhances sonic warmth and clarity. "The Silk feature allows us to tailor the sound to meet production needs, making the mix feel as smooth as silk," noted **Nasan Fernandes**, Senior System Engineer at SNL Pro.

The PM10 leverages **Dante audio networking**, ensuring low-latency, high-fidelity sound transmission across complex event setups. The system also includes redundant fibre

connectivity, allowing for stable, long-distance audio transport in large-scale venues.

Fernandes highlighted the system's intuitive workflow, emphasising its importance during fast-paced live events. "Ease of use and reliability were key factors in our decision to invest in the PM10," he said.

With over 300 experienced professionals, SNL Pro caters to a diverse range of events, from corporate gatherings and music festivals to sports leagues and political rallies. The addition of the PM10 system positions the company to deliver high-quality audio for the most demanding productions.

**Manish Mavani**, Director at SNL Pro, noted, "The versatility and reliability of the Rivage PM10 system make it an invaluable addition to our inventory. It's perfect for our diverse portfolio of events, ensuring exceptional sound quality."

SNL Pro's investment in the Rivage PM10 highlights its leadership in the sound reinforcement industry. By adopting Yamaha's flagship system, the company reaffirms its reputation as a pioneer in live event audio, delivering transformative sound experiences across India's vibrant entertainment landscape.

This milestone represents a step forward for both SNL Pro and the broader live sound industry in India, demonstrating the power of integrating innovative technology into live event production.



The Yamaha Flagship Rivage PM10 acquired by Sound and Light Professionals

To get any recent news featured in **PALM Expo Magazine** from the pro audio or lighting industry, contact:  
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## COVER STORY: HORNBILL FESTIVAL

*The Hornbill Music Festival, often referred to as the “Festival of Festivals” featured numerous artists and bands performing across multiple stages. The 25th edition of this larger-than-life festival became a vibrant celebration of culture this year, thanks to JBL Professional. With its seamless sound engineering, JBL created an electrifying atmosphere, ensuring both artists and audiences enjoyed an unforgettable journey.*



# JBL Professional Brings the 25<sup>th</sup> Hornbill Festival to Life

### JBL VTX Systems Pose as the Backbone of Exceptional Audio

With over 40 bands performing across multiple stages, the festival required an audio setup that could meet the diverse needs of both traditional and contemporary performances while ensuring seamless sound quality throughout the event. JBL's carefully selected range of equipment played a pivotal role in delivering a superior auditory experience for the festival's enthusiastic audience.

JBL Professional deployed an impressive array of systems for the event, including the **VTX A12**, **A6**, **G28 subwoofers**, and **B15 systems**. Each of

these models was chosen for its specific strengths, which were perfectly aligned with the festival's unique environment and the technical demands of such a large-scale event.

The VTX A12, JBL's flagship line array system, was the primary choice for the festival's main stage. Its high output capacity and extensive coverage were essential for addressing the large crowds spread across open and semi-open venues. The A12's versatility made it the perfect fit for the wide range of performances at the festival, seamlessly adapting to both traditional and modern music, ensuring that every corner of the venue resonated with clarity and power. With thousands of attendees and a variety of musical styles, the A12 provided the sound quality needed to deliver a



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**The flagship VTX A12, JBL's choice for the main stage**

flawless experience.

For smaller stages and more intimate settings, JBL selected the VTX A6 system. Known for its compact design and efficiency, the A6 was ideal for spaces that required precise sound coverage without sacrificing clarity. This system integrated smoothly with the larger A12 setup, ensuring a consistent audio experience throughout the festival grounds, even in tighter spaces. The A6's role as a front-fill speaker also enhanced clarity in critical listening zones close to the stage, ensuring no detail was lost in the performance.

Low-end frequencies are crucial for creating a rich and immersive audio experience, particularly for modern musical genres. The **JBL G28 subwoofers** were chosen to deliver deep, powerful bass, which added depth to the performances while complementing the traditional rhythms. The G28 subwoofers' high output ensured that the bass resonated effectively throughout the large outdoor spaces, providing a dynamic and balanced sound profile that elevated the overall audio experience.

The festival's main stage hosted performances from the diverse array of bands, making it essential to have a sound system that could provide exceptional clarity and coverage. The VTX A12 was deployed as the main PA system, ensuring that the audio was powerful and consistent throughout the large audience area. To complement the VTX A12, the G28 subwoofers delivered



**JBL G28 subwoofers chosen for their deep powerful bass**



**Martin MAC ONE wash beam illuminates artists at Hornbill**

the deep bass required for high-energy performances, adding depth and impact to the sound. Additionally, VTX A6 speakers were strategically placed as centre fills, ensuring balanced sound and enhanced clarity in the critical listening zones near the stage. This integration of systems helped minimize potential technical challenges, as JBL's approach ensures seamless compatibility across all components, delivering uniform sound performance throughout the festival grounds.

Scalability, rugged design, and superior performance made JBL's systems the perfect choice for a dynamic event like the Hornbill Festival, offering balanced, high-fidelity sound throughout the expansive venue.

## **Martin Lighting Complements JBL's Sound Reinforcement With Unparalleled Superiority**

Martin Lighting's contribution played a key role in elevating the festival's visual appeal, ensuring that the lighting perfectly complemented JBL's world-class sound systems to create a captivating experience for both artists and the audience.

The selection of Martin Lighting products was integral to achieving this dynamic fusion. One of the standout fixtures was the **Martin MAC ONE light**, a new wash beam light that served both as face lights and effect lights. These versatile lights were deployed across the festival's stages to illuminate the performers and enhance the visual atmosphere. Featuring an RGBL LED engine, the MAC ONE not only provided powerful lighting effects but also boosted the Colour Rendering Index (CRI), ensuring that colours appeared natural and true-to-life. This was crucial for showcasing the vibrant costumes and intricate props that accompanied the performances, especially when highlighting the visual richness of traditional acts and modern performances alike.

The lighting was designed to synchronise seamlessly with the music, adapting to the tempo and mood of each performance. Martin's lighting systems were programmed to shift between styles in real-time, allowing the visual elements of the festival to mirror the emotional intensity of the music. For traditional performances, the lighting created a warm and inviting atmosphere, using soft hues to complement the cultural richness of the acts. In contrast, for more high-energy, contemporary performances, Martin's lighting team deployed bold, dynamic effects that energized the crowd and enhanced the impact of each performance. This ability to change the lighting's tone based on the performance's genre or mood created a fluid, immersive environment where the lighting and music became an inseparable part of the experience.

Another key lighting fixtures that enhanced the visual spectacle was the **Martin Mac Aura PXL**. Known for its innovative pixel-controlled LED effects and versatile wash lighting capabilities, the Mac Aura PXL allowed artists to





**Martin Mac Aura PXLs in action at the main stage**

create intricate, pixel-based visual effects that complemented the audio in a synchronized dance of light and sound. As the lights moved in sync with the music, the stage transformed into a dynamic visual canvas that captured the energy and spirit of the festival.

The **Mac Ultra Performance**, another integral fixture, played a critical role in ensuring the lighting was visible and impactful from all areas of the venue. With its powerful output and sharply defined beams, the Mac Ultra Performance made its presence felt across large crowds, ensuring that every attendee, regardless of where they were seated or standing, could enjoy the full visual experience. The fixture's advanced features, including precise focus control, vibrant colour mixing, and a broad array of gobo and effects options, allowed the lighting team to craft creative, diverse lighting designs that adapted to the variety of performances featured at the festival. This versatility made it a perfect tool for an event as large and multifaceted as the Hornbill Festival, where different genres and performance styles required different lighting approaches.

Together, these Martin Lighting fixtures created a visual environment that not only illuminated the performers but also enhanced the overall festival experience. Beyond the lighting fixtures themselves, Martin Lighting's expertise in lighting design played a significant role in ensuring that the festival's visual identity was strong, dynamic, and consistent.

The lighting design not only illuminated the performers but also created a stunning visual narrative that unfolded throughout the festival. Whether it was

the subtle transitions of colour during a traditional performance or the dramatic lighting effects that accompanied high-energy acts, Martin Lighting ensured that every performance was visually dynamic and engaging.

## Planning to Execution with a Dedicated Technical Team

The success of the 25th Hornbill Music Festival in Nagaland was not only thanks to the cutting-edge sound and lighting technology provided by JBL and Martin Lighting but also the incredible efforts of the technical team behind the scenes. Over the course of the festival's 10-day celebration, this team played an indispensable role in ensuring that both sound and lighting operations ran seamlessly, allowing for a smooth, uninterrupted experience for both artists and audiences.

Pre-event preparation was critical, as the team was responsible for overseeing the system design and equipment setup. This process involved rigorous testing of the equipment, ensuring that everything would function optimally once the festival was underway. System configuration, including the fine-tuning of various components, was meticulously planned so that every technical need was addressed in advance. This careful preparation allowed the team to anticipate and mitigate any potential issues before they could arise during the festival.

Once the festival was live, the technical team remained on-site, continuously monitoring the systems to ensure flawless performance. They conducted regular checks and were always on standby, ready to make real-time adjustments if necessary. This proactive approach ensured that the festival ran smoothly, allowing the artists to focus on their performances while the team handled any technical challenges. Whether it was adjusting audio levels or modifying lighting effects, the team's expertise and swift response ensured that the technical aspects of the festival never disrupted the experience for the attendees.

However, setting up the festival was no easy task, and the technical team faced several challenges during the preparation phase. The festival took place at Kisama Village, which, at the time, was still an active construction zone. The ongoing civil work presented several obstacles, such as limited space and time to rig the equipment and manage the load. These constraints required meticulous planning and creative problem-solving to ensure that everything could be set up effectively.

To overcome these challenges, the team relied on a combination of advanced tools and their own expertise. Venue Synthesis, a tool used for designing and optimizing the setup, played a critical role in ensuring that every detail of the system was accounted for, despite the space and time limitations. This allowed the technical team to plan the optimal placement of sound and lighting equipment, maximizing coverage and performance. With this tool in hand, the team was able to turn what could have been a chaotic setup into a well-executed success.

From overcoming logistical challenges to ensuring every detail of the sound and lighting setup was perfect. The team's efforts behind the scenes played a central role in delivering a festival that showcased the incredible synergy of culture, technology, and live performance. Their ability to adapt, plan, and execute under pressure ensured that both the artists and the audience could enjoy a seamless, uninterrupted festival experience.

## Feedback from Artists and Audiences

Feedback from both artists and sound engineers regarding JBL and Martin's previous deployments at similar events, including the Hornbill Festival, has been



**Martin Mac Ultra Performance shines bright with its sharply defined beams**

*(Continued on page 49)*

## ADAM AUDIO UNVEILS THE D3V NEARFIELD MONITOR

ADAM Audio introduced its latest addition to the nearfield monitoring lineup, the **D3V**, a compact system aimed at songwriters, producers, and audio enthusiasts who seek high-quality sound reproduction in a convenient size. Drawing on over 25 years of loudspeaker innovation, the D3V offers the brand's renowned sound fidelity in a versatile design.

Available in both black and white finishes, the D3V includes an active pair of monitors featuring 3.5" aluminium woofers, supported by dual-sided passive radiators that enable bass response down to 45 Hz. To deliver the precise, low-fatigue high-end sound ADAM Audio is known for, each D3V incorporates the company's signature AMT tweeter in the form of the 1.5" D-ART. This



Adam Audio D3V speakers offer high fidelity audio for professionals

feature, widely appreciated in their established monitor line, allows the

D3V to deliver detailed high frequencies with minimal distortion, ensur-

ing accuracy in any critical listening environment.

Incorporating digital technology and practical connectivity, the D3V comes with a USB-C port that allows users to bypass an additional audio interface for playback, facilitating direct connection to a digital source. "This preserves the digital signal and allows for superior audio reproduction," ADAM Audio stated. For compatibility with traditional setups, the D3V also includes balanced TRS inputs, while a front-facing headphone jack and multi-function volume knob add to its ease of use.

The D3V further offers DSP-powered room acoustic switches, desktop stands, and a 3/8" microphone mounting interface on the underside, providing flexibility for various studio or desktop setups.

## BEYERDYNAMIC UNVEILS NEW DT 1770 AND DT 1990 PRO MKII HEADPHONES

Beyerdynamic has launched the **DT 1770 PRO MKII** and **DT 1990 PRO MKII headphones**, designed for professional audio applications. These new models, aimed at recording, monitoring, mixing, and mastering, incorporate the advanced **TESLA.45** driver technology. This dynamic driver features a specially designed diaphragm, which aims to reduce distortion, enhance response, and help alleviate ear fatigue during extended listening sessions. Both headphones have a stated impedance of 30 ohms, making them compatible with a variety of playback devices without sacrificing sound quality.

Commenting on the development, beyerdynamic's CEO **Andreas Rapp** noted, "As we continue to see the lines blur between traditional studio setups and at-home production workflows, flexibility and uncompromised audio quality have become key priorities for professionals and enthusiasts alike. The DT 1770 PRO MKII

and DT 1990 PRO MKII exemplify this, offering cleaner sound, improved comfort, and precision for every production."

The TESLA.45 driver is distinguished by a diaphragm crafted from a PEEK polymer, which provides deeper bass and more precise high-end sound. The aluminium-coated copper wire voice coil further refines treble response. Each unit undergoes rigorous testing to ensure consistent

audio fidelity across production.

The DT 1770 PRO MKII features a closed-back design for recording and monitoring, effectively isolating the user from external noise and minimizing microphone bleed in studio environments. Compared to previous models, the frequency response has been improved for a smoother upper midrange and more balanced treble.

In contrast, the DT 1990 PRO MKII's open-back design offers a spacious

soundstage, optimized for critical mixing and mastering. Adjustments have been made to reduce the treble response slightly at 8 kHz, helping users avoid potential mixing errors, while maintaining detailed high frequencies at 10 kHz.

Both models include a flexible headband made of spring steel, with memory foam and leatherette for comfort. A specific fontanelle recess reduces pressure on the head. The DT 1770 PRO MKII comes with both leatherette and velour earpads, while the DT 1990 PRO MKII includes two types of velour earpads: "Producing Velour" for fuller sound and "Mixing & Mastering Velour" for a more analytical audio profile.

Supplied accessories include a 3-meter detachable cable, a 5-meter spiral cable, both with lockable 3-pin mini-XLR connectors, and a protective hard case. Additional USB-C cables are available separately for connection with laptops, smartphones, and other digital devices.



The new closed-back DT 1770 PRO MKII and open-back DT 1990 PRO MKII headphones from beyerdynamic



## OPTIMAL AUDIO EXPANDS ECOSYSTEM WITH COMPACT SUB 6 SUBWOOFER

One of the leading commercial audio manufacturers **Optimal Audio** has introduced the **Sub 6**, a passive subwoofer designed to enhance low-frequency performance in smaller loudspeaker setups. This latest addition to the company's growing ecosystem is engineered for

installations that require added bass impact while maintaining a compact footprint.

The Sub 6 features a 6-inch driver and is designed with a low-frequency port to reduce air noise, ensuring clean and powerful sound output. With a power rating of 250W (AES)

and a peak SPL of 118dB, the Sub 6 is suitable for environments where space is limited. The unit's versatile design allows it to be installed horizontally or vertically, with rubber feet for both orientations. It can be discreetly mounted in tight spaces, such as under seating, or on walls and ceilings, using integral M8 inserts.

**David Morbey**, Product Manager at **Optimal Audio**, highlighted the flexibility of the new subwoofer, "The addition of Sub 6 to the Optimal Audio ecosystem gives integrators yet more choice and flexibility in the commercial audio space, particularly benefiting smaller installs that still require greater

low-end punch."

The Sub 6 pairs with Optimal Audio's SmartAmp for amplification and integrates seamlessly into existing systems, offering easy setup and control via the WebApp. Additionally, the subwoofer is fully protected by EQ settings and limiters when operating at higher sound levels.

Those interested in exploring the new Sub 6 and other products within the Optimal Audio range were invited to attend the company's Open Days at its High Wycombe headquarters in September. Morbey encourages customers to experience the product firsthand, noting, "We look forward to welcoming customers for a first listen to Sub 6 at our next open days in September."

The Open Days took place on September 3rd, 4th, and 5th, and provided a comprehensive overview of Optimal Audio's products, along with training sessions for those who were pre-registered.



The all-new Optimal Compact Sub 6 Woofer for low frequency performance



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# MEGA SOUND HITS THE RIGHT NOTES WITH MAROON 5'S INDIA DEBUT

*When Maroon 5 made their much-anticipated debut in India, the event was nothing short of spectacular. Behind the scenes of the 20,000-strong crowd's euphoria lay a technical marvel in sound engineering, executed by **Mega Sound**, one of India's leading sound rental companies. The company's meticulous planning and execution ensured that the concert's audio met the highest international standards, solidifying India's standing as a venue capable of hosting world-class events.*



Maroon 5's Debut in India sonically powered by Mega Sound

## From Design to Deployment

The planning phase involved creating detailed simulation files tailored to Maroon 5's needs. These designs outlined the audio setup, covering aspects such as speaker configurations, signal flow, and coverage patterns. The simulation files were shared with the band's engineers for review and received approval with minimal adjustments, demonstrating the accuracy and foresight of Mega Sound's initial design.

"After presenting the initial system design, there were only minor tweaks needed, which validated our understanding of their requirements," Mega Sound's Head System Designer, **Vishrut Joshi** said.

Once the designs were approved, Mega Sound transitioned seamlessly into the deployment phase. The team worked tirelessly to set up the massive audio infrastructure while maintaining constant communication with Maroon 5's technical crew to ensure every detail was executed to their satisfaction.

The team from Mega Sound for the Maroon 5 concert was led by Audio Director **Siddharth Chauhan**, with Vishrut V. Joshi as the Head System Designer.

The design of the front-of-house (FOH) and signal transport was handled by **Sanjay K**, while the FOH technical team included **Swapnil Elpass** and **Harshal Phillare**. **Devender Jethi** led the stage operations as the Stage Head, supported by Stage Tech, **Lokesh Salvi**. This experienced team worked together seamlessly to ensure the flawless execution of the sound system, making the concert an exceptional audio experience.

## Meeting Maroon 5's Audio Requirements

Maroon 5's technical rider laid down stringent requirements: a powerful, clear, and evenly distributed sound system to fill the expansive outdoor venue. Mega Sound rose to the challenge by deploying the **L-Acoustics K1 KX system**, a globally renowned choice for its power, clarity, and tonal fidelity.

The sound setup featured:

- **48 L-Acoustics K1 Tops** for primary sound coverage.
- **20 L-Acoustics K2 Tops** for extended range.



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- **24 K1SB flying subwoofers** paired with **48 KS28 subs** to deliver deep and resonant bass.
- **L-Acoustics KARA** fills for near-field clarity
- Amplification via **L-Acoustics LA Rack II AVB** for efficient and reliable sound power
- **DiGiCo Quantum 5 Production Console** for sound mixing

Mega Sound utilised advanced simulation software to design a custom sound map, incorporating the venue's acoustics and the band's unique specifications for speaker placement. These plans underwent rigorous review by Maroon 5's technical team, who approved them with minimal adjustments.

**Vishrut Joshi** explained why Mega Sound chose these companies and their products, "We consistently take CAD designs and integrate them into our simulation software to ensure that the system delivers the best possible sonic experience on the field. Recently, we added the L-Acoustics K1 KX standard system to our inventory, and we are fully aware of the power these boxes can deliver. Alongside this, **DiGiCo** consoles are also known for their unparalleled

challenges.

## Overcoming Challenges

Setting up the sound system at such a massive venue, the Mahalaxmi Racecourse, required an extraordinary level of coordination. "The stage itself was massive, and the production was truly impressive," Joshi shared. "However, the planning for the entire truss and tower setup was so well thought out that it allowed for minimal obstacles during deployment." The scale of the production, which saw 20,000 fans gathered in the open-air venue, presented unique challenges, including the need to deliver consistent sound coverage across a vast space.

The team initially faced setbacks due to the logistical delays, which pushed them back by a full day. But rather than let this hinder progress, Mega Sound used the extra time wisely. The team kept its focus on staying ahead of the revised schedule and continued fine-tuning the setup to ensure every aspect of the sound system was executed to perfection. "We quickly adapted and ensured that every detail was executed with precision," the team added,



**Mega Sound's notable set-ups include the L-Acoustics line arrays and DiGiCo's Quantum Consoles offering unmatched sound precision**

sonic quality, making them the preferred desk choice for top-tier audio professionals worldwide."

## Building a Unified Vision

From the outset, Mega Sound and the event organisers established clear lines of communication to align their technical goals with the overall vision for the event. Understanding that sound was only one part of the intricate production puzzle, Mega Sound worked closely with the organisers to ensure that the audio system complemented and enhanced other elements like stage design and lighting.

Joshi says, "We began by reviewing the CAD designs of the stage layout and overall event space, integrating our sound system simulations into the broader production plan. This early collaboration allowed us to account for sightlines, visual elements, and potential obstructions while ensuring optimal sound coverage for the entire venue."

## Sound Equipment Breakdown

The concert's sound configuration extended beyond the speakers:

- **Main Hangs:** Each array included 4 K1SB subs, 12 K1 tops, and 2 K2 downfills
- **Outer Hangs:** Included 4 K1SB subs, 6 K1 tops, and 4 K2 downfills
- **Delay Hangs:** Extended coverage to the farthest areas with a similar configuration featuring 4 K1SB subs, 6 K1 tops, and 4 K2 downfills
- **Mixing Consoles:** Mega Sound provided a **DiGiCo Quantum 5** console for the opening acts, seamlessly complementing Maroon 5's **DiGiCo SD5** and **SD10** units, that the band bought on their own

The system's precise alignment was achieved using the **L-Acoustics M1 calibration tool**, ensuring even sound distribution despite environmental



**Mega Sound's team conducting checks before the concert to ensure all is smooth running**

demonstrating their ability to pivot and keep operations running smoothly.

Signal routing was a critical component of the setup. Maroon 5's technical team required a system that was reliable. Mega Sound implemented **Luminex Gigacore switches** for seamless network connectivity, ensuring smooth data transmission across the venue.

The concert also utilised audio over **Ethernet** with a 96kHz sample rate, bypassing traditional analogue-to-digital conversions. Throughout sound checks and rehearsals, Mega Sound maintained constant communication with Maroon 5's engineers, making real-time adjustments to fine-tune the mix and meet the band's precise preferences. This approach preserved audio fidelity, allowing every note, beat, and lyric to reach the audience with pristine clarity.

Another key challenge that Mega Sound had to navigate was the unpredictable weather conditions. Being an open-air venue, the Mahalaxmi Racecourse exposed the sound setup to the elements, particularly wind, which could easily disrupt the stability of the equipment. In preparation, Mega Sound proactively adjusted the rigging, ensuring the entire setup was secure and resilient against the gusty conditions.

"One key factor we had to consider was the wind," Joshi explained. "We proactively prepared for this by adjusting the rigging and ensuring the setup could withstand any weather challenges." This foresight ensured that the sound system remained stable, delivering consistent and high-quality audio despite the environmental variables.

## Maintaining International Standards for an Iconic Act

Maroon 5's stature as a global band demanded audio quality that matched international standards. Mega Sound achieved this through meticulous planning and innovative technology using only the best the industry has to offer.

"We continuously remained in close contact with Maroon 5's system en-





**The L-Acoustics K1 System deployed by Mega Sound**

gineer throughout the process, collaborating on every detail to ensure their expectations were met,” Mega Sound’s team shared.

The collaboration with Maroon 5’s technical team was grounded in professionalism, clear communication, and mutual respect. From the very beginning, both teams worked closely to align on every aspect of the event’s audio setup. Mega Sound established direct communication channels with the band’s system engineers, ensuring every requirement from their technical rider was understood and implemented.

“Our first step was reviewing Maroon 5’s technical rider and collaborating with their engineers to define the exact specifications for the sound system and signal routing,” Mega Sound team explained. “This included preferences for speaker placement, audio coverage, and venue-specific considerations such as acoustics.”

### Sound Check: Fine-Tuning Excellence

The real test came during sound checks and rehearsals, where the collaboration between the two teams reached its zenith. Mega Sound and Maroon 5’s engineers worked side by side to fine-tune the system, focusing on balancing the instruments, vocals, and overall audio coverage. Advanced tools like the **DiGiCo Quantum 5 console** were used to ensure precision in the audio mix, meeting the band’s exact specifications.

“During sound checks, Maroon 5’s team was highly involved, providing real-time feedback on the sound mix. We adjusted the system collaboratively, ensuring optimal performance,” Joshi shared.

### Technical Walkthroughs and Pre-Event Planning

Given the scale and complexity of the production, Mega Sound participated in multiple technical walkthroughs and pre-event meetings with **BookMyShow Live** and **Live Nation**. These sessions were invaluable for addressing potential challenges and refining the integration of the sound system with other production elements.

“We shared our system specifications and technical plans early on to prevent conflicts with power supply, cable management, or data flow, thus laying the groundwork for a smooth integration of all systems,” Joshi noted. “This proactive approach ensured that every team was aligned, minimising last-minute adjustments and enabling a smooth setup process.”

### Integrating with Stage Design and Lighting

The placement of **speakers, trusses, and towers** was a critical factor in achieving both functional and aesthetic goals. Mega Sound’s team liaised with the stage and lighting design teams to ensure the audio setup did not interfere with visual elements or block sightlines for the audience. “This collaboration allowed us to work within the constraints of the stage design while still

delivering exceptional sound coverage,” the team said.

Additionally, Mega Sound coordinated the technical elements of signal routing and audio distribution with the lighting and video teams to ensure synchronisation across all systems. The result was a harmonious integration of audio and visual effects, creating a multi-sensory experience for the audience.

### A Collaboration Built on Precision and Trust

The collaboration extended beyond technical adjustments. Mega Sound ensured the entire process was smooth by accommodating specific logistical requests and providing solutions that anticipated potential challenges. The partnership was characterised by a shared commitment to delivering an audio experience that matched Maroon 5’s international stature.

Executing a large-scale event featuring a global act like Maroon 5 demands meticulous coordination between various production elements to deliver a seamless experience. Mega Sound’s collaboration with event organisers



**The Maroon 5 concert was an unforgettable experience due to the efforts of Mega Sound under Siddharth Chauhan**

BookMyShow Live and Live Nation exemplified how careful planning, open communication, and technical precision can align sound delivery with stage design, lighting, and other logistical components to create a cohesive and immersive production.

### A Turning Point for Indian Live Sound

Welcoming a global sensation like Maroon 5 signifies a new era for the Indian live sound rental industry. With India becoming a prominent stop on international artists’ tours in 2024 and 2025, the demand for high-quality audio production is at an all-time high. This surge is driven by the growing popularity of live entertainment and an expanding audience base eager for world-class experiences.

“India is witnessing the highest number of international artists touring in 2024 and 2025,” Joshi observed, highlighting the rapid growth of the market. These developments are challenging the industry to match and exceed international benchmarks, fostering a shift towards advanced technology and top-tier equipment.

The Maroon 5 concert required meticulous planning and execution to achieve audio quality that met global standards. From the use of L-Acoustics K1 systems, known for their unmatched power and clarity, to DiGiCo Quantum 5 consoles for precise audio control, the event demonstrated the Indian industry’s capability to handle productions of global magnitude.

### Raising the Bar for Production Standards

The increasing scale and complexity of international acts in India are driving an upskilling of the country’s live sound professionals and the adoption of cutting-edge equipment. As Mega Sound noted, the Maroon 5 concert highlighted the shift towards precision and high-quality sound demanded by such acts.

*(Continued on page 26)*

## CASE STUDY: HOUSE OF WORSHIP

The **Kumbanad Mar Thoma Valiya Palli**, an emblem of faith dating back to 1761, has recently undergone a groundbreaking transformation. With its fifth reconstruction now complete, the church not only stands as a testament to its enduring legacy but also as a marvel of modern acoustical engineering. **PALM Expo Magazine** team spoke to **Zacs** and **Phils**, the audio integration experts behind this ambitious project, and uncovered the intricate process of designing a customised sound system tailored to the church's unique acoustics. Stay tuned as we dive deeper into how this historic church has become a beacon of faith fused with technology, ensuring every prayer, hymn, and word resonates beautifully.



The historic Kumbanad Mar Thoma Valiya Palli Church



# Harmonising Heritage: Technology Enhances Worship at Kumbanad Mar Thoma Valiya Palli

Recognising the importance of sound clarity for spiritual and communal worship, the church embarked on a journey to enhance its auditory environment while preserving its historical integrity.

The reconstruction, which spanned 14 months, was led by archi-

tect, **Jeff Antony**, who carefully balanced the church's heritage with a modern approach to design and acoustics. This initiative addressed the dual challenge of maintaining architectural sanctity while achieving superior sound quality in a space designed for sermons, liturgical music, and communal worship.





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Zacs and Phils incorporated cutting-edge equipment

## Engineering Excellence in Worship Acoustics

Large worship spaces are often susceptible to acoustical issues such as excessive reverberation, echoes, and uneven sound distribution. Recognising these challenges, the church committee sought the expertise of Zacs and Phils, one of the most respected names in house-of-worship audio integration. The project required technical precision as well as sensitivity to the spiritual and cultural importance of the space.

To ensure pristine sound clarity and uniform coverage, Zacs and Phils employed a data-driven methodology. Using acoustic simulation software, they created a virtual model of the church, simulating sound behaviour including reflections, delays, and Sound Pressure Level (SPL) variations. This approach informed a highly customised audio system design, tailored to the unique acoustics of the space.

The system incorporated the following elements:

### 1. Loudspeakers:

- **Turbosound NuQ Series Subwoofers** were installed to provide deep, resonant bass, enhancing the emotional depth of musical performances.
- **Tannoy VLS Loudspeakers** delivered exceptional speech intelligibility and clear sound projection, ensuring every corner of the church was covered.

### 2. Amplification:

- **Lab.Gruppen Amplifiers** provided powerful and distortion-free sound, guaranteeing reliability even during peak usage.

### 3. Digital Control and Signal Processing:

- The sound system was controlled using a **Behringer X32 Digital Mixing Console**, known for its intuitive operation and precision, enabling seamless adjustments for varying liturgical needs.
- **Marani Digital Signal Processors (DSPs)** were employed to fine-tune the system, aligning the sound output with the acoustical signature of the space.

## 4. Microphones:

- **Audio-Technica microphones** were chosen for their superior ability to capture the nuances of both speech and music, ensuring clarity and richness in every sound conveyed.

## Key Acoustical Achievements

The newly installed system successfully addressed critical parameters:

- **Reverberation Time (RT60):** Balanced to enhance speech intelligibility without compromising the warmth of musical tones.
- **Coverage Uniformity:** Achieved through precise placement and calibration of loudspeakers.
- **Sound Transmission Class (STC):** Optimised to minimise interference from external noise, preserving the sanctity of the worship environment.

These technical enhancements have ensured that every sermon, hymn, and note resonates clearly with the congregation, creating an immersive and uplifting spiritual experience.

## Community and Leadership Reactions

The reconstruction and acoustic upgrades have been warmly received by both the church authorities and the congregation. **Bijo Varghese** (Secretary), **George Joseph** (Convenor and Trustee), and **Rev. Monsi K. Philip** (Vicar) described the project as the realisation of a "long-cherished dream."

Adding to the praise was **Rev. John Mathai**, former **Director of the Department of Sacred Music and Communications (DSMC)**, who lauded the initiative for its groundbreaking contribution to the Mar Thoma Church's global music ministry.

## Blending Faith with Innovation

The reconstruction of the Kumbanad Mar Thoma Valiya Palli sets a new standard for modern house-of-worship acoustics, demonstrating how technology can harmonise with tradition. By transforming the church's auditory environment, Zacs and Phils have created a space where faith and innovation coexist to serve the community better.

This project exemplifies the profound impact that acoustical engineering can have on cultural and spiritual spaces, ensuring that sacred traditions continue to thrive in harmony with modern advancements.

## MEGA SOUND HITS THE RIGHT NOTES WITH MAROON 5'S...

(Continued from page 23)

"This milestone demonstrates the level of audio precision required to meet international standards," the team explained. With equipment like audio-over-Ethernet systems operating at a 96kHz sample rate, traditional A/D and D/A conversions are bypassed, ensuring superior sound quality with no fidelity loss.

Such advancements reflect the Indian industry's readiness to invest in world-class technology, providing local sound rental companies with opportunities to partner with global brands and refine their capabilities.

## Mega Sound's Vision: Attracting Global Collaborations

Mega Sound, fresh off its triumph with Maroon 5's first-ever concert in India, plans to capitalise on this milestone by showcasing its expertise to the global stage. "This achievement highlights our technical expertise, cutting-edge inventory, and ability to execute large-scale productions flawlessly," the team remarked.

The firm's strategic use of state-of-the-art equipment, such as the L-Acoustics K1 system and the DiGiCo Quantum console, and its proven track record in delivering for high-profile events make it a strong contender for international collaborations. Mega Sound aims to position itself as the go-to partner for global artists and event organisers looking for top-tier audio production in India.

By building on the success of the Maroon 5 concert, Mega Sound is setting the stage for more global partnerships, contributing to the growth of India's live entertainment landscape. Their unwavering commitment to excellence and innovation is a promising sign of the industry's bright future.

## India on the World Stage

Hosting Maroon 5 has underscored the Indian live sound rental industry's potential to rival global production hubs. As the country continues to welcome more international artists, the demand for superior sound and immersive experiences will only grow. With companies like Mega Sound leading the charge, India is on its way to becoming a major player in the global entertainment industry. This milestone is more than a success story; it's a signal of the industry's capacity to innovate, adapt, and set new standards for live sound production.

**Siddharth Chauhan**, Founder and Managing Director of MSIPL (Mega Sound India Pvt. Ltd.) expressed pride in the company's achievements stating, "This event is a testament to our dedication to delivering uncompromising quality in audio production. We are proud to have set a benchmark in India's live music scene and are excited to welcome more international collaborations in the future."



## Digital Wireless Stereo IEM System



### MARTIN AUDIO DELIVERS ONTIME IN MUMBAI

The **OnTime Hotel** in Mumbai has recently upgraded its event spaces with high-performance **Martin Audio** sound systems, installed by **VMT Distribution**, enhancing the hotel's ability to host a variety of events with superior audio quality. This improvement aims to cater to the hotel's diverse client base, including both corporate and tourist guests, without compro-

mising on the venue's aesthetics.

The upgrade focused primarily on the hotel's two banquet halls, commonly used for corporate meetings, weddings, and entertainment events. A key priority for the project team was to ensure minimal disruption to the hotel's operations during the installation, so the work was completed in stages around the hotel's busy schedule. VMT's team faced the added challenge of adapting the system to fit

the unique acoustics of each banquet hall, optimising speaker placement to provide consistent audio coverage throughout the spaces.

Several units of **Martin Audio's V.15 speakers**, a 15-inch passive two-way loudspeaker, were selected for the installation. This model, known for delivering high sound clarity and power across both music and speech applications, was a fitting choice for the hotel's multifunctional event spaces. Additionally, the on-wall design of the V.15 allowed the speakers to blend seamlessly with the existing decor, preserving the aesthetic integrity of the rooms.

"The installation of the Martin Audio V.15 system has been revolutionary for us at The OnTime Hotel," said **Shusheel Rao**, Systems Integrator at OnTime hotel. "The sound quality is exceptional, delivering crystal-clear audio that enhances every event we host, from corporate meetings to large-scale weddings. Not only has it

transformed the overall guest experience, but it has also allowed us to meet the high expectations of our clientele."

**Jeff Mandot**, Director at VMT Distribution, also shared his perspective on the project: "The installation at The OnTime Hotel reflects a growing trend within the hospitality industry, where high-quality sound systems are becoming essential for creating immersive guest experiences. Projects like this not only meet the immediate needs of the client but also set a new standard for audio installations in similar venues across the country."

This upgrade at The OnTime Hotel underscores a broader industry shift toward high-quality audio installations within hospitality venues, where sound systems play a crucial role in enhancing the overall guest experience.



Martin Audio distributed by VMT upgrades Mumbai OnTime Hotel with bespoke audio systems

### POWERSOFT AMPLIFIERS AND VERSO GATEWAY DELIVER STUNNING INSTALLATION AT BELLANDUR SOCIAL

**Bellandur SOCIAL**, Bangalore's latest entertainment venue, has enhanced its audio experience with **Powersoft's** advanced audio solutions, creating a dynamic, multi-zone sound system tailored for various events, from daytime dining to nighttime entertainment. The venue, housed within an oval glass dome, required a robust audio setup to cater to diverse areas, including a DJ section, VIP lounge, and outdoor balconies. This installation marks the 54th **SOCIAL** outlet by **Impresario Hospitality Pvt. Ltd.**, led by **Riyaz Amlani**, designed to immerse visitors in a "garden city" ambiance.

The installation, led by audio consultant **Utkarsh Naidu** from Techflow, features Powersoft's Mezzo, Duecanali, and Quattrocanali amplifiers, as well as the innovative Verso gateway device, all of which are monitored through the **MyUniverse** cloud platform. According to Naidu, these amplifiers' compact design, high performance,



Powersoft and Verso Gateway stun patrons at Bellandur SOCIAL in Bangalore with their cutting-edge installations

and Dynamic Music Distribution capabilities made them ideal for delivering consistent audio across the venue's multi-zone layout. "Powersoft was the ideal choice for this installation; the amplifiers' versatility and high-performance capabilities perfectly matched the project's diverse requirements, from space constraints to acoustic consistency," Naidu explained.

A range of Powersoft amplifiers was utilized, including four **Quattrocanali 1204 DSP+D**, two **Quattrocanali 4804 DSP+D**, one **Duecanali 4804 DSP+D**, one **Duecanali 804 DSP+D**, and four **Mezzo 604 AD amplifiers**. These were complemented by three **WM Touch** touchscreens, controlled remotely through the Verso gateway device, which connects the amplifiers

to the **MyUniverse** cloud platform for seamless monitoring and adjustments. "The remote management capability streamlined our operations, saving time and reducing the need for on-site visits," noted Naidu.

Naidu highlighted the unique acoustic challenges of the venue's

(Continued on page 35)



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## BETA3 AUDIO DELIVERS BESPOKE AUDIO SOLUTIONS

Nestled in the serene surroundings of Jaipur's Bird Park, the **Nest Coffee House** is a restored 19th-century pump house offering visitors a unique blend of history, nature, and modern amenities. To enhance the auditory experience for patrons, **Beta3 Audio** installed a modern sound system, carefully adapted to the space's historic and natural charm.

### Challenge 1: Integrating Audio Systems Without Impacting Heritage Design

The café's colonial architecture posed a significant challenge. Ensuring a modern sound installation

requirements, Beta3 Audio implemented a combination of their **Xi Series Premium Wood Speakers**, **N Series Professional Systems**, and **DT Series Class D Amplifiers**. These solutions were chosen for their sound quality, compact design, and compatibility with the café's aesthetics.

- **Xi Series Premium Wood Speakers:** With a natural wooden finish, these speakers blend seamlessly with the café's rustic interiors, offering warm and rich tones that create an inviting and soothing atmosphere.
- **N Series Systems:** Compact yet powerful, these systems ensure ex-

### Installation Highlights

1. **Strategic Positioning:** The speakers were carefully placed to ensure even sound coverage without compromising the café's architectural integrity.
2. **Custom Calibration:** Beta3 Audio fine-tuned the system to address the café's unique acoustics, balancing sound reverberations from high ceilings and open spaces.
3. **Aesthetic Alignment:** The sleek design of the Beta3 speakers integrates harmoniously with the café's historic and natural elements, ensuring a cohesive visual

supports versatile uses, making it ideal for events and gatherings.

"The Beta3 audio installation has brought a new dimension to Nest Coffee House. The sound system perfectly complements our heritage and natural setting, creating an unforgettable experience for our visitors," stated the café's management.

Beta3 Audio's installation at Nest Coffee House showcases the potential of integrating advanced sound systems with historic architecture and natural surroundings. By deploying the Xi and N Series speakers, supported by DT Series amplifiers, the café has achieved a perfect blend of techno-



that preserved its aesthetic integrity required innovative solutions.

**Solution:** Beta3 Audio's solution was to deploy compact speakers with discreet mounting techniques to maintain the architectural authenticity of the interiors and exteriors.

### Challenge 2: Balancing Technology with Natural Acoustics

Nest Coffee House's location amidst natural surroundings, including bird calls and flowing streams, demanded an audio system that complemented, rather than overshadowed, the environment.

**Solution:** The audio system was carefully calibrated, ensuring a soundscape that enhanced the café's ambiance while harmonising with its natural elements.

To address the café's unique re-



The XL Series, N Series & DT Series deployed by Beta3 Audio enhance patron's experience

ceptional clarity and uniform sound distribution throughout the café.

- **DT Series Class D Amplifiers:** These amplifiers provide efficient and precise sound reproduction, adapting effortlessly to the café's diverse acoustic demands.

and auditory experience.

The sound system has significantly elevated the café's ambiance, offering patrons a soothing auditory backdrop that complements its natural and historic setting. Whether for background music or announcements, the system

logical innovation and environmental harmony.

Nest Coffee House now stands as a testament to how thoughtful design and sound engineering can enrich spaces, offering a haven for coffee enthusiasts and nature lovers alike.



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### GITANJALI AUDITORIUM UPGRADES WITH BRITISH ACOUSTICS

**Gitanjali Auditorium**, nestled in Bolpur's Gitanjali Cultural Complex, West Bengal, has upgraded its audio system with **British Acoustics** equipment, transforming its versatility for film screenings, live performances, and cultural events. Known for hosting a diverse array of film

provided by **VMT Distribution**, aimed to deliver immersive sound while accommodating the diverse requirements of events. Key components of the system include:

- **BA Alpha Ray 428 LAs:** For uniform sound distribution.
- **BA Alpha Sub 428S:** Enhancing low-frequency output.

fied touring applications.

- **BA 2XL and 2XM Amplifiers:** Powering the system reliably.

**Anup Kumar Biswas**, systems integrator at MD Satellite Electronics, noted: "The BA speakers and amplifiers we installed delivered an unmatched audio experience, especially with the Alpha Ray line arrays and the powerful

**Dharam Koli**, pre-design and sales engineer at VMT Enterprise, added:

"The transformation at Gitanjali Auditorium has been truly remarkable. From the initial design phase to the final installation, our goal was to create an immersive sound experience that enhances every detail of the cinematic journey. It's rewarding to see the audience enjoy the upgraded audio quality, which brings films to life in an entirely new way."

The project included careful calibration to ensure even sound coverage and the versatility to handle diverse event types. The auditorium now benefits from a system that seamlessly integrates with its structure while delivering rich and clear audio.

The upgraded audio setup has reinforced Gitanjali Auditorium's position as a premier venue, enhancing audience engagement and setting a new standard for sound quality in cultural spaces. Powered by British Acoustics, the venue offers an immersive and memorable experience for all its visitors.



**VMT installs the BA Alpha Series to enhance the auditorium's immersive sound experience**

genres, the auditorium sought an audio solution that would provide uniform sound coverage and exceptional fidelity.

The installation, managed by **MD Satellite Electronics** and

- **BA Radial 206TW Speakers:** Ensuring additional coverage.
- **BA XP 15H and XP 12H Powered Speakers:** Providing flexibility for various acoustic needs.
- **Delta Drive 48:** Supporting ampli-

subwoofers. The system's seamless integration and high performance have given the auditorium a distinct edge in terms of sound quality, ensuring that every event hosted here leaves a lasting impression on the audience."

### TOA ELECTRONICS LAUNCHES NEW TZ-107-AS AND TZ-207-AS COLUMN SPEAKER SERIES

**TOA Electronics India Private Limited** has introduced its latest **Column Speaker series** with the launch of the **TZ-107-AS** and **TZ-207-AS** models. Designed for a wide range of applications including houses of worship, educational institutions, airports, and railway stations, these speakers aim to provide superior sound quality in a compact form factor.

Both models feature a streamlined design that offers a broad frequency response, with a specific emphasis on clear, high-frequency

output. This makes them ideal for spaces where speech intelligibility is crucial. "The TZ-107-AS and TZ-207-AS are equipped with IP44-rated dust and water resistance, making them suitable for both indoor and outdoor environments," TOA representatives noted.

The flexibility of installation is another key feature, with mounting options that allow for both horizontal and vertical placements to accommodate different venue requirements. These models are set to improve sound clarity in diverse

settings, reinforcing TOA's commitment to quality and innovation in the audio equipment sector.

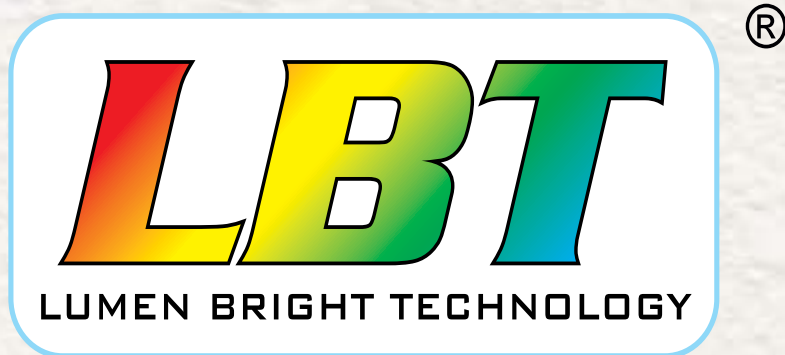
The release of these speakers continues TOA's tradition of delivering reliable audio solutions for modern environments while meeting the evolving needs of users.

**TOA Electronics TZ-107-AS and TZ-207-AS column speakers**





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## TRANSFORMING AMBIANCE: AN AUDIO REVOLUTION AT FOXTROT, SILIGURI

**Foxtrot**, a trending restaurant in Siliguri renowned for its chic design and vibrant vibe, has set a new benchmark in sound innovation. Recognising the importance of high-quality audio in enhancing customer experience, Foxtrot partnered with **Pink Noise Professionals Pvt Ltd.** to install a custom audio system tailored to its unique space and atmosphere. This installation perfectly complements the venue's lively character while delivering an immersive auditory experience.

Foxtrot's dynamic layout, featuring two floors and four distinct sections, demanded a versatile audio setup capable of operating independently or in sync. The design complexity was

challenges, Pink Noise Professionals achieved a harmonious balance of sound through meticulous planning and product selection.

To craft the ultimate sound environment, Pink Noise deployed state-of-the-art equipment, ensuring every corner of the restaurant

was enveloped in superior sound quality. The setup included:

- **Entar12 (2 units) & Entar8 (6 units):**

These speakers, chosen for their exceptional clarity and wide coverage, ensure balanced sound throughout the venue, from the

The installation team worked collaboratively with Foxtrot to ensure optimal speaker placement for even sound distribution. Each component was strategically positioned to avoid overwhelming specific areas while maintaining uniformity. The system was fine-tuned with expert calibration, achieving a seamless blend of high, mid, and low frequencies. This careful calibration ensures that guests enjoy a harmonious auditory experience, whether for lively background music or more intimate moments.

Discussing the technical challenges, **Vijay Sinha**, Director of Marketing & Sales at Pink Noise, noted:

"It has been one of those projects where every complexity of musical performance which could have been possible came through. Spread across two floors and four sections, each to work independently or mixed, was a challenging system programming. Also, the glass-clad walls and ceiling added more challenges to create a smooth and crisp sound solution. However, with careful planning and product selections, we have managed to offer one of the best properties in Siliguri for music and food lovers."

**Vineet Kochar**, COO **Azure Hospitality Pvt Ltd** (Foxtrot Siliguri) spoke highly of the Pink Noise team stating their work as the go-to choice for all their needs: "Pink Noise Professionals has been our trusted partner for music solutions for almost a decade now. Whether a simple cafe or a complex music routing solution like Foxtrot, they have always been on the toes for keeping up the music standards in our projects. Azure Hospitality is totally overwhelmed by the response of local public in Siliguri. Keep up the good work Vijay."

By leveraging products from **Workpro** and **EAW**, Pink Noise Professionals have elevated Foxtrot into a destination where music and culinary excellence converge seamlessly. The collaboration with Pink Noise Professionals not only met but exceeded the demands of a sophisticated dining venue, setting a benchmark for sound design in the hospitality industry.



**Pink Noise elevates the dining experience in Foxtrot, Siliguri with their flawless installation**



heightened by the presence of glass-clad walls and ceilings, notorious for sound reflections that could compromise audio clarity. Despite these



**Zenith series amplifiers guarantee reliable sound distribution**

bar area to the dining tables.

- **EAW RS118 Subwoofers (2 units):**

Known for deep, resonant bass, these subwoofers elevate low-end frequencies, enhancing the overall sensory experience.

- **Athos 8 (7 units) & Athos B15 (2 units):**

These speakers are optimised for mid to high-frequency precision, allowing vocal and instrumental details to shine.

- **Zenith1700 (3 units) & Zenith2500 (2 units) Amplifiers:**

The Zenith series amplifiers guarantee consistent and reliable power distribution, supporting uninterrupted sound performance across the setup.



## YAMAHA AND UNITY ELEVATE NAGPUR'S LARGEST AMUSEMENT PARK

Nagpur is now home to a sprawling entertainment park that promises a one-of-a-kind experience for families and thrill-seekers alike. Spanning 40,000 square feet, the park features state-of-the-art attractions ranging from trampoline zones and bowling alleys to soft play areas for children. However,

park's aesthetic design, and handle the technical challenges of installation 30 feet above ground level.

Unity Electronic Systems partnered with **Yamaha** to create an audio solution that addressed these challenges head-on. The configuration included:

- **8 Yamaha DHR15 speakers** for expansive coverage across the park.

tailored audio experience for different zones.

**Harish Pandey** from Unity Electronic Systems praised the collaboration, stating, "The solution provided by Yamaha & Team Unity was up to the expectations. The speakers blend perfectly with the venue's aesthetics and elevate the customer experience with amazing sound quality."

auditory experience.

The result is a park that does more than entertain—it immerses its guests in a soundscape that enhances every thrill, every laugh, and every moment of joy. Whether it's the deep, resonant bass accompanying a trampoline leap or the crystal-clear announcements echoing through



Yamaha installs high-end subwoofers & speakers to enhance Nagpur's largest amusement park

creating an audio system that matched the scale and sophistication of the venue posed a unique challenge.

The task of designing an immersive audio environment for such a massive venue fell to **Unity Electronic Systems**. The requirements were clear yet demanding. The audio system had to ensure uniform sound quality across various sections, integrate seamlessly with the

- **2 DHR10 speakers** to target more specific areas with precision.
- **5 DXS18XLF subwoofers**, strategically concealed within the trampoline area, for robust bass frequencies.
- **6 VS4 and 2 VXS8 speakers**, positioned strategically for clear and powerful sound distribution.

The system was powered by the **PX3 amplifier**, while the **MG10XCV** and **MG06X mixers** provided reliable, user-friendly sound control, ensuring a

**Jinesh Jain**, the owner of the park, also expressed his satisfaction, emphasizing the transformative role of the audio setup in creating an unforgettable experience for visitors.

By leveraging Yamaha's advanced technology and Unity's expertise, the park successfully overcame its acoustic challenges. The carefully calibrated system ensures that every area—from the high-energy trampoline zones to the serene soft play spaces—delivers an equally immersive and engaging

the bowling alley, the audio system has become a vital part of the park's identity.

This partnership between Yamaha and Unity Electronic Systems highlights how cutting-edge audio technology can elevate the visitor experience in large, dynamic spaces. By addressing both technical and aesthetic demands, the park sets a benchmark for innovation in entertainment.

## POWERSOFT AMPLIFIERS AND VERSO GATEWAY... (Continued from page 28)

dome-shaped design, which Powersoft's digital signal processing effectively managed to maintain clear audio quality across all zones. "It was crucial to ensure consistent sound quality and distribution throughout the space, and Powersoft played a key role in maintaining clear audio across all zones, catering to both dining and nightlife settings," he said.

The equipment includes 20 **DAS Audio ARTEC-306** and five **ACTION-508 loudspeakers**, two **Q-10** and nine **ARTEC-S15 subwoofers**, four **RCF NXL-44-44-4 loudspeakers**, and two **RCF 8008 subwoofers**. Techflow utilised a **Dante AVIO 2 input adapter** for efficient audio routing, while **Netgear AV line switches** ensured reliable connectivity.

Naidu also emphasized the future-proof nature of Powersoft's solutions, allowing for potential system upgrades as the venue evolves. "The modularity of Powersoft means expansion and upgrades can be easily managed. Whether it's adding more zones, integrating newer audio technologies, or scaling the system to accommodate larger events, the

infrastructure is already in place for seamless adaptation," Naidu stated.

Feedback on the sound system has been positive, with staff and guests alike noting the system's quality and ambiance. Naidu concluded, "The sound system has exceeded expectations, with high-quality audio creating the perfect ambiance for both daytime dining and nighttime events."

by Viraf Pocha



2023 and 2024 have been fabulous years for the live music industry. Worldwide and in India. After what looked like a lull, people are thronging clubs, arenas and stadiums. Looking for live music. The recorded music industry is in a bit of a flux. Giant names are crashing down. Once dominant music labels are floundering around wondering what to do. The tech boys had come in and distributed music essentially for free. That finished the business plans of spending money in the studios and making records that people bought in millions. A few decades ago, **Pink Floyd** debuted their much awaited and hyped up *The Wall*. It sold a few million copies and was still number two on the charts. **Michael Jackson's** *Thriller* was selling even more.

A few weeks ago, **David Gilmour's** (of Pink Floyd) new solo album hit No. 1 on the charts. With sales of some 10,000 odd copies. In an interview, David Gilmour laughed that earlier on Pink Floyd's record company had approached the band with a warning. *Dark Side Of The Moon* was now only selling 600,000 units a month.

The band had better release a new album or it would lose relevance. Today's bands will be thrilled if they sold 600,000 thousand albums in their careers.

### Massive Swings

How did the music industry survive? Back in the day of selling millions of albums every week – Concert tickets were USD 20 odd. Essentially, bands went out to play their music – to encourage fans to go out and buy albums and come home and play them as loud as they could.

Music equipment sold huge amounts of home speakers etc. Sound was discussed till we were blue. More and more esoteric systems were born. As in most

such things – form slowly started over shadowing function. People started discussing How Speakers Looked in their living rooms. From there to boom boxes, and that in my opinion was the end to good music.

Studios who were obsessed with capturing high-quality sound on tape, vinyl and CD, found it was useless to spend so much money. And essentially recorded music to rumble your tummy and shriek into your ears. We know the downside. Music venues needed to be filled. Easiest way was to sell *Girl Power*. A slot **Madonna** found herself very comfortable in. **Madonna** and **MTV** made music visual. It took over the world but that did not last too long, did it? For a while it was impossible to make it as a star in the music business. DJs thumped away. People loved the music, but nobody was impressed by their looks.

Massive stage and lighting systems were set up to wow audiences. That gave birth to festivals that are still doing extremely well. Festivals last days. Music producers quickly realised that more money could be made off supplying food, water and thrills to massive numbers.

Soon, food and beverage stations dwarfed the stages. More energy was spent in those areas and less attention was paid to music. All that changed after COVID. After being isolated by COVID, people wanted to step out and enjoy a community experience. Festivals splintered and divided crowds. Single stars were required to bring all the fans together under one banner. **Elton John** was the first to really go out big. And suddenly the huge tours behind one artist started. **Taylor Swift**, **Coldplay** and **Adele** stepped up to claim their share of the pie. I think that had a huge effect on the technology.

Most obviously with video systems. Multiple screens of massive scale were assembled. Of course, bands had used screens in the past. But this technology was next generation. Most dramatically in the Sphere in Las Vegas. Every video techie must visit and study the sheer scale.

Apparently, the screens can show such fine detail and dimension that new cameras needed to be designed to capture such detailed data. Taylors' entire set up was a massive screen both behind and below her feet. Both Taylors & Coldplay's concert stages are essentially thrust out into the middle of the stadium. To bring the performers right into the audience's lap. VIP seats were no longer front row centre, but higher up on the side for VIPs to enjoy the entire stage floor come alive.

### Where do you place the band?

I personally am alarmed that the bands are being spread further and further apart. Communication is with TV screens. Sounds a bit impersonal to an old school guy like me – But the bands are sounding tight. Varied. So many tracks are sounding like straight off the album.

Adele and her team went one step up. No established residency for her. She decided to build her own residency in Munich. An unusual choice perhaps. No apparent connection between Adele and Munich in the past, but to Munich she went and built an entire theatre/arena for herself. I personally don't know too much about the set up. But from photos we can see a huge screen dominating a slim stage. Musicians tucked away. From all reports a powerhouse performance.

And then after performing for weeks, just dismantled the stage and maybe will be assembled in another such city. I understand that the above-mentioned sphere has already started construction in Abu Dhabi, and plans are on to set up 11 spheres around the world. I guess that means bands will tour the Spheres. If you look at the line up so far. **U2**, **The Dead**, **Eagles** and the young **Phish** have performed residencies in the globe. I'm sure there have been a few one offs. Wonder which act will have the honour to be the first one to Tour the spheres.

The **Rolling Stones** amazingly roll on. Eighty-Year-old **Mick Jagger** still sprints up and down the ramp. Still

out sings the stage versions *Tina Turner*. His backing singer on the tour. Beautiful voice she has. But Mick still manages to dwarf her amazing vocal ability.

And then the year capped out with the great David Gilmour. True to his authenticity.

Superb live band. Live backing vocals. Live instruments. No click tracks. Play with feeling.

So, the amazing light show had to be done live. I still have to study and understand the technology the shows used. The Fabulous **Marc Brickman** – brimming with energy, turned the stage on its head.

Literally. The (almost) LED screen was suspended over the band and the band was lit by sometimes just a few LED heads, shimmering with colour and then Rained down with beams.

Magical. All done with a stylus live – with the band.

Great discipline on stage, but always room for some flair and flourish that the amazingly accomplished band just fell into step with.

Sound was liquid gold. The video just enough for the guy in the back row to enjoy David's amazing technique.

The concert has been really well received. I sincerely hope we get to see more such shows.

That rely on the music to grab you. The technology there just to see everybody has a wonderful experience and never overpowers the performer or the music.

(Continued on page 62)



# Technology, Tradition, and Transformation: The Narrative Behind Majestic Deepotsav 2024

*An Insightful Discussion with the Technical Brains behind Deepotsav 2024*



*In the world of event technology, Deepotsav 2024 stands out as a notable project. It exemplifies the power of integrated multimedia systems. More than just an event, it was a groundbreaking cultural production that remarkably united people. PALM Expo Magazine team recently had the privilege of speaking with **Davinder Wadhwa** and **Pratik Wadhwa**, the visionaries behind this Multimedia project.*

**Reporter:** Mr. Wadhwa, could you tell us about your vision behind this project?

**Mr. Wadhwa:** Our vision was to transform Ram ki Paidi and its 370-foot façade into a living canvas, bringing Lord Rama's story to life through cutting-edge multimedia. We aimed to create an unparalleled cultural display that would use technology to make ancient mythology a captivating, emotionally resonant experience for audiences.

**Reporter:** How did you bring the epic "Hanuman Ji Ki Ramayan" to life, and what was the inspiration behind this unique retelling?

**Mr. Wadhwa:** We drew the narrative from the Yudh Kand of the Valmiki Ramayana, presenting a unique **Reverse Ramayana**, a retelling of the story from Hanuman's perspective. This beautiful narrative was crafted by the eminent writer and director, Atul Tiwari Ji, with the exceptional creative efforts of Priyanka, Mandeep and the talented team.

**Reporter:** How did you create an immersive experience for the audience?

**Mr. Wadhwa:** Our 370-foot façade transformed into a living canvas through innovative projection mapping. The 150-foot stage on the sacred waters of Saryu at Ram ki Paidi served as our storytelling platform. We brought 150 artists from across India to create a mesmerizing performance, choreographed by the renowned choreographer Maitreyee Pahari. The multimedia show combined 3D Projection, laser lights and sound with 150 live artists to revive a forgotten chapter of the Ramayana. More than just a performance, it was a unique cultural experience that connected mythology and modern storytelling, creating an unforgettable event for Ayodhya.

**Reporter:** Can you walk us through the technical infrastructure you deployed?

**Mr. Wadhwa:** It was truly a remarkable setup. We assembled 20 nos. Christie Laser Crimson DWU 31 projectors each delivering more than 30,1500 lumens. We deployed 24 nos. Laser units, with varying intensities of 60W and 40W, 08 nos. Clay Paky Skylos, 300 nos. Moving Head units, 100 nos. Moving Head Wash units, 350 nos. LED PAR and 150 nos. LED Pixel Batten DMX, all controlled through advanced software. The sound system featured 18 nos. Power line array JBL VTX A12 Speakers, 12 nos. JBL VTX B28 SUBS, 18 nos. Centre JBL VTX A12 speakers, 12 nos. Centre JBL VTX B28 SUBS and 08 Monitor L-Acoustics. The show was run on 8 nos. Original PIXERA Servers. Essentially, we built a dynamic storytelling platform that could instantly bring mythological scenes to life.

**Reporter:** What was the most challenging aspect of this event?

**Mr. Wadhwa:** Integration! We embraced a holistic storytelling approach by making technology the storyteller. Our control systems enabled real-time coordination of projection, lighting, and sound with 150 live artists, creating an immersive experience with crystal-clear audio for over 100,000 attendees per show. The show was witnessed by approximately more than 500,000 people over three days.



## LIGHTING DESIGN: ED SHEERAN $+-=\div\times$ TOUR

*PALM Expo Magazine had the privilege of speaking to **Mark Cuniffe**, the critically acclaimed lighting designer behind **Ed Sheeran's** record-breaking  $+-=\div\times$  Tour (Pro-nounced the **Mathematics Tour**). Known for his innovative approach to stage design, Cuniffe has crafted unforgettable audience experiences for decades. From tackling the unique challenges of a 360° stage setup to employing cutting-edge technology and navigating logistical hurdles, Cuniffe's journey on this tour exemplifies the art and science of world-class live production. Read on to get invaluable insights into the complexities of designing a show that ensures every member of the audience experiences the magic, no matter their perspective!*



The Mumbai leg of Ed Sheeran's  $+-=\div\times$  Tour was one of Asia's biggest events this year

# LIGHTING THE STAGE AT ED SHEERAN'S $+-=\div\times$ TOUR: MARK CUNIFFE'S DESIGN GENIUS

### Designing a 360° Lighting Challenge

Cuniffe highlighted the unique challenge of designing a concert "in the round," where the stage is surrounded by the audience on all sides. Unlike traditional performances with a clear front-facing design, this setup requires a completely different lighting and staging approach.

"The lighting design then becomes completely different, instead of an end show, it involves more backlighting," Cuniffe explained. "What is a backlight for one member of the audience looking that way is a front light for the audience looking the other way. You have to completely redesign it because otherwise, it becomes very flat. It washes out the artist."



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Ensuring balance and visibility for every attendee was paramount. "The most important thing is the audience can see the artist. And when you're doing it in the round, you've got an audience looking at the artist from 360 degrees. You have to change the lighting design to make sure that is the case for everybody," he emphasized.

This commitment to audience experience required reimagining traditional lighting setups and creating innovative solutions to deliver a uniform and dynamic show for every angle.

## Adapting to Mumbai and Scaling the Tour for Asia

The Mumbai leg of the  $+-=\div\times$  Tour was one of Ed Sheeran's largest Indian concerts and presented its own set of challenges. By the time the production reached Asia, many hurdles from earlier shows had been resolved, but logistical constraints required scaling down the setup for some venues.

"We couldn't physically get the full-size show to a lot of the Asian routes," Cuniffe explained. However, these limitations also led to creative problem-solving. "By the time we got to Mumbai, we had ironed out all of the problems."

Adapting the production for regional constraints while maintaining the essence of Sheeran's performance underscored the team's flexibility and ingenuity.

## Blending Vision with Execution

The collaboration between Cuniffe and Sheeran was a cornerstone of the tour's success. While Sheeran provided a broad vision, he entrusted Cuniffe with the technical execution. "Ed lets me get on with the nuts and bolts of things. He thinks about broad brushstrokes. The first interaction we had was at the end of *Divide* with him saying, 'I think I'm ready to go in the round'," Cuniffe said, reflecting on their partnership.

A pivotal design moment came when Sheeran insisted on minimising barriers between himself and the audience. "He didn't want a roof that had four posts holding up a roof. He said, 'No, I don't want anything behind me.' And the goal here was to reduce the distance between the audience and him. He didn't want three meters in stage between him and the audience," Cuniffe explained.

This conversation sparked the innovative use of six masts to suspend the roof, a design that eliminated obstructive structures and brought Sheeran closer to his fans.

## Technology Meets Creativity

Cuniffe and his team used **Virtual Reality (VR)** to refine the stage and lighting designs, bringing creative concepts to life before construction. "We designed the show, put Ed in a headset and he'll say, 'I like that,' or 'Can we change that?'" This iterative process ensured that the final product aligned perfectly with Sheeran's artistic vision.

The integration of VR bridged creative ideas and practical execution, saving time and resources while enabling Sheeran to visualize his show during the planning stage.

Logistics played a critical role in executing the  $+-=\div\times$  Tour. Cuniffe discussed the impact of advancements in technology, particularly the transition to lightweight, energy-efficient LED equipment.

"Weight is always a problem. I've been in the industry for 40 years, and the equipment has got lighter, and LED is fabulous in terms of the power requirements," he noted. This technological evolution not only made transporting equipment easier but also allowed for more ambitious designs without compromising safety or efficiency.

Transporting the show across continents presented additional challenges. "As soon as you start moving into Asia and India and Southeast Asia and, Taiwan Korea, it gets very expensive. Because the time it takes to move the equipment by boat is a lot longer than flying, but with flying it gets very expensive. That's when you have to start thinking about how things pack down," Cuniffe explained.

## The Emotional Connection: Fans and the Artist

Reflecting on the emotional bond between Sheeran and his fans, Cuniffe underscored its significance. "It's always how the audience reacts. And I don't

think he had played such a big show in India. There was a massive emotional response to him as an artist, and he always remembers things like that," he said.

The lighting and stage design were tailored to amplify this connection, ensuring that every fan felt a direct link to Sheeran's performance, regardless of where they were seated in the venue.

## Delivering Value with The Sheeran Standard

Cuniffe credited Sheeran's generosity and commitment to delivering value for the success of the tour. "Ed Sheeran and his manager Stuart are one of the most generous in terms of the funds they put into their shows," he said.

"I always think about shows as being value for money. If you're going to spend, I don't know, a hundred pounds, go to see an artist. What do they get back in return? And you look at some of the shows that are out there at the moment, be it **Tennis Roof**, be it **Beyoncé** be it **Coldplay**, I always feel that Ed's shows stand out really well as being a value for money show." This ethos of prioritising audience satisfaction resonated throughout every aspect of the production.

Mark Cuniffe's work on the  $+-=\div\times$  Tour epitomises the intricate balance of artistry, innovation, and technical precision required to craft a world-class concert experience. From tackling the challenges of 360° stage design to leveraging cutting-edge technology, every detail was meticulously executed to leave audiences mesmerised.

As live music continues to evolve, Cuniffe's vision and expertise set a benchmark for what's possible. His work not only enhances the fan experience but also redefines the possibilities of live event production on a global scale.

## The Need for IP-Rated Equipment

"Everything has to be IP-rated," Cuniffe began emphatically, setting the tone for an interview rich in technical detail. "I don't like waterproofing on stage. I think it looks ugly, especially in daylight." This principle guided one of his earliest decisions: to ensure that all equipment, from cameras and lighting to sound and lasers, was completely IP-rated.

Back in 2019, when the tour's planning began, this presented a significant challenge. "At the time, there really wasn't an IP-rated long-throw profile on the market," he explained. While some solutions existed, none met his stringent requirements. "It had to have CTP and CTO wheels, minus green wheels, a full colour range, and a zoom from three degrees to 50 degrees."

This gap in the market led to an innovative collaboration with **Golden Sea**. After issuing a tender document outlining his precise specifications, Cuniffe worked closely with the company to create the **Domino LT**. The custom-designed fixture not only met his requirements but also became an integral part of the  $+-=\div\times$  Tour.

## The Domino LT: A Game-Changer for Stadium Tours

Cuniffe deployed an impressive **150 Domino LT** units across the tour, including 12 specifically dedicated as follow spots for Ed Sheeran. These lights provided exceptional versatility, ensuring Sheeran was always in focus regardless of his position on the stage.

"This was about enhancing the connection between Ed and his fans," Cuniffe revealed. "Depending on where he was, the follow spots ensured that he was always the centre of attention, creating an intimate experience for the audience despite the vast stadiums."

The fixtures' performance exceeded expectations, becoming a cornerstone of the lighting design. "The Domino LT wasn't just about meeting a technical requirement—it transformed how we approached lighting for a global tour of this scale."

## A Marvel of Stage Engineering

The tour's stage design was a masterpiece of engineering innovation. "Technology has allowed me to design a show where you can suspend 56 tons above the artist on just steel wire," Cuniffe said, referring to the innovative catenary system.

This suspension system not only eliminated sightline issues but also created a seamless viewing experience for audiences across the stadium. "It's about making sure that everybody feels part of the show," he emphasised. The stage



Reflecting on the differences between lighting for stadium tours and smaller venues, Cuniffe highlighted the unique challenges of each setting. "In a stadium, lighting is generic, broad brushstrokes," he explained. "In a theatre,

As the designer concluded, "It's all about the artist. The audience has come to see their name on the ticket, and my job is to make that experience unforgettable."



## HI-TECH AUDIO & IMAGE HOSTS INDIA'S FIRST OFFLINE MADRIX TRAINING

**Hi-Tech Audio & Image** successfully conducted the country's first offline **MADRIX** training sessions in Mumbai, Bengaluru, and New Delhi. The sessions aimed to enhance the skills of lighting professionals in the fast-evolving domain of advanced lighting control and programming.

The workshops were led by **Chintan Patel**, Director of **Chintan Patel Acoustics and Lighting Solutions (CPALS)**. These training sessions offered participants practical insights and hands-on experience with MADRIX 5.7 features. Compatibility with MA consoles through network triggers was also demonstrated. Participants engaged in live video sessions with the MADRIX team in Germany, adding an interactive dimension to the workshops.

"The purpose of this 3-city training tour with Chintan Patel was twofold: to empower our local talent with cutting-edge knowledge and to elevate brand awareness for MADRIX in India. Through live, practical sessions, participants experienced first-hand the flexibility, creativity, and technical superiority of the MADRIX lighting control system. Such exposure enhances the confidence of lighting professionals in using MADRIX products, and it also helps them see how MADRIX can redefine the visual atmosphere in various setups, from nightclubs and concerts to large-scale installations," said **Yash Gupta**, Vice President of Hi-Tech Audio & Image.

The Mumbai session opened the series, attracting professionals from the entertainment and event production industries.

"India's lighting industry is expanding rapidly, and MADRIX is set to be a key player, offering a versatile tool that's easy to use for diverse projects. The recent training showcased MADRIX

5.7's new features, such as OSC, Time and Location Scheduling, CSV Fixture List Import, and the Background Image feature. This last addition allows users to create patches directly on venue photos, mapping pixels for fixture placement with precision. A key FAQ addressed was MADRIX's compatibility with MA consoles, enabling integration through network triggers. Participants also interacted

with the MADRIX team in Germany through a live video session, making it a highly engaging experience," shared Chintan Patel.

Reflecting on the broader impact of these workshops, **Rajan Gupta**, CEO-Founder of Hi-Tech Audio & Image, stated: "This training marked a milestone in advancing our industry by bringing world-class lighting programming knowledge directly to

our clients and partners. Hosting this offline training in India was a conscious decision to bridge the knowledge gap in innovative lighting control and ensure that professionals have direct access to hands-on expertise in MADRIX's powerful system. This first-ever MADRIX training in India aligns with Hi-Tech Audio & Image's vision to bring innovative, premium lighting solutions to the Indian market, ensuring our clients remain on the forefront of technology."

Adding to this, Managing Director, **Nirdosh Aggarwal** commented, "By facilitating hands-on experience with MADRIX, we're not only building competence but also creating an industry-wide appreciation for the brand, positioning MADRIX as a go-to choice in dynamic lighting control. This initiative will undoubtedly play a crucial role in strengthening MADRIX's reputation in India as we continue to support lighting professionals with the knowledge and tools they need for success."

Participants praised the training for its relevance and practicality. **Ajay K. Teja**, Sales & Product Manager at Hi-Tech Audio & Image, noted, "Feedback from participants has been overwhelmingly positive, with many expressing confidence in using MADRIX for their projects. The training not only strengthened technical skills but also encouraged the community of like-minded professionals eager to push the boundaries of lighting design. As the demand for sophisticated lighting solutions continues to grow, we at Hi-Tech Audio & Image, along with MADRIX, remain committed to providing essential training and resources to empower users across India. Our team looks forward to hosting more training sessions in the future, further enhancing the capabilities of lighting professionals nationwide."



**Chintan Patel and Yash Gupta distributing certificates to the session's attendees**



**The session aligns with Hi-Tech's goal of bridging the knowledge gaps amongst professionals in the industry**





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# INDIAN RECORDING ARTS ACADEMY (IRAA) 2024



*A Night of Sound Excellence and Unforgettable Achievements Supported by Genelec*

In the ever-evolving world of music and sound, where melodies enchant and rhythms mesmerise, the true heroes are often those working silently behind the scenes. **The Indian Recording Arts Academy (IRAA) Awards**, since its inception, has been a shining beacon of recognition for these masters of sound. A testament to technical brilliance and creative genius, the IRAA Awards are the only accolades in India that exclusively celebrate the exceptional contributions of sound engineers and music producers.

On **29th November 2024**, this legacy was elevated to new heights with the latest edition of **IRAA Awards 2024**, held at the **Bombay Exhibition Centre, Mumbai**. Organised by **Hyve India**, this edition was nothing short of spectacular. Supported by **Genelec**, a world leader in professional audio solutions, the evening glimmered with accomplishment as awards were presented to **110 awardees** across a staggering **73 categories**.

NESCO's Grande Banquets transformed into a lavish haven of black-and-gold grandeur. As guests arrived, the red carpet came alive with industry stalwarts, up-and-coming talent, and smiling recipients, all ready to partake in the evening's celebrations.

More than just a ceremony, the IRAA Awards embodied a celebration of

**rkar, Raag Sethi, S. Sivakumar, Shantanu Hudlikar, Sreejesh Nair, Subhash Sahoo, Tubby, Vijay Benegal and Yogesh Pradhan.**

## Pramod Chandorkar delivers a heartfelt address

**Pramod Chandorkar**, the Director of the IRAA 2024 Jury, opened the evening with a heartfelt address, reflecting on the incredible journey of sound engineering in India. Sharing his insights, he spoke about the immense growth and excitement surrounding the industry, particularly the surge in indie music and the bright future ahead.

"A lot of great work is happening, especially in the indie music scene. This also gives us an opportunity to know a lot of young talent, which is so amazing and the kind of work they're doing. It feels great to know that the future of audio and music is in great hands. Also, I would like to mention that each jury member worked hard. We had a lot of debates about a specific assessment criterion or how each entry should be looked at.

As you are aware, we have a very unique model of assessment where the identity of the nomination or the nominee is not revealed till the end. So that helps us ensure that there is no bias involved. The clear and only criteria



IRAA 2024 Jury present at the award function

craftsmanship, the intricate art of shaping soundscapes that make music and storytelling unforgettable. For those attending, the evening was an emotional journey, recognising the tireless work of sound engineers and producers who ensure every note, beat, and lyric resonates with perfection.

The ceremony also highlighted the critical role of technology in the creative process, with **Genelec** amplifying this vision as a dedicated supporter.

IRAA 2024 was not merely a ceremony but a statement, an unapologetically grand spectacle that stood as a testament to India's ever-growing sound recording industry. The unwavering support of Genelec, for the second consecutive year, underscored the importance of recognising talent at every level, and the ceremony reflected their commitment to the sound engineering and studio community in India.

The prestigious jury, headed by the Director **Dr. Pramod Chandorkar**, comprised a stellar lineup of industry experts: **Ashish Saksena, Donal Whelan** (marking his debut on the jury panel from the UK), **Jim Satya, Mujeeb Dada-**

for the choice of the winners is good work and nothing else. So, to all the juries who have been supportive of this, I would like to thank **Anil Chopra** for really spearheading this whole movement. At the same time, **Smita Rai** (Vice Chairman of IRAA) did a great job handling all the administrative parts of the awards ceremony."

Dr. Chandorkar also passed the baton to Vijay Benegal, revealing him as IRAA Director 2025. Benegal expressed excitement for the role stating, "I look forward to being on the jury every year, and this coming year, I'll be the awards director. The role is challenging, but I still get to listen to the music, which I'm always eager to do!"

## Honouring a Lifetime of Dedication, Excellence and Achievement

This year, the IRAA Awards featured three Lifetime Achievement Awards! The **Lifetime Achievement Award for Contribution to Audio Recording**



celebrates individuals who have made outstanding, long-term contributions to the field of audio recording. This prestigious honour recognises their dedication, innovation, and impact on advancing recording techniques, technologies, and artistry. It serves as a testament to their influence on the audio industry and their role in shaping its evolution for future generations. This year at the IRAA Awards, the Lifetime Achievement Award for Contribution to Audio Recording was posthumously conferred on **Nikhil Mehta**. A self-taught sound recordist. An expert music editor. The visionary co-founder of India's first audio website. A pioneer, who had consistently been ahead of his time. His son **Aditya Mehta** and nephew **Sunil Mehta** from **Sudeep Audio** accepted the award.

"I am very grateful to IRAA Jury for awarding the 'Lifetime Contribution Award' given to my father posthumously. It's a great honour because it comes from the fraternity itself and we have a lot of seniors in the jury who have not just worked with my father but learned from him as well. You get to hear the winners work, and it just helps improve your own recording standards.



**Aditya Mehta and Sunil Mehta accepting the Lifetime Achievement Award for the late Nikhil Mehta**

According to me, it's always a learning exercise," said Aditya Mehta.

The **Lifetime Achievement Award for Contribution to Music** at the IRAA Awards 2024 was proudly presented to **Padma Vibhushan Shri Ustad Zakir**



**Ustad Zakir Hussain's message to the IRAA 2024 audience**



**Ustad Fazal Qureshi accepts the award on behalf of Ustad Zakir Hussain**

## Anil Chopra's Vision: Elevating Sound Engineering to an Art Form

As the grand celebration of sound excellence unfolded at the **IRAA Awards 2024**, there was one moment that captured the very essence of the evening, when **Anil Chopra**, the **Founder and Chairman of IRAA**, took centre stage. His keynote address wasn't merely a speech; it was a resounding call to action, a rallying cry for the Indian recording industry to embrace its hidden talent and propel it into the global limelight.

"IRAA has been founded and created with the primary mission of recognition for Indian sound engineers and their excellence in the field. And this comes subjectively for me, as I come from, the 1980's, the late 1970's when in India sound engineering equipment was very difficult to get hold of. There was 250% duty. There weren't many imports. It was not allowed, or it was allowed under license. It was very expensive. And the music industry in India was booming. There were thousands. This is not an exaggeration but literally there were thousands of music releases on cassette and India was experiencing music revolution as after nearly almost 100 years of single British company called EMI releasing gramophone records, suddenly India experienced the revolution of cassette and there were thousands of a NR managers, record labels, producers and all the folk music of the country was being recorded.

And one such person, of course, we are honouring tonight, as of you know, his contribution to sound recording in India, he is here, his children are here with us today to receive that award. And those were very difficult days. And you know, sound engineering even at that time, even prior to that, the great sounds of Indian cinema, they have all been recorded by some of the most brilliant sound engineers ever in the world, the songs we love. There is immense sound engineering behind it.

This IRAA has been created to establish that sound engineering is an art form, and that art form should be recognised for the mastering engineer for royalties and that is a long journey that we must go on and keep on persisting with until we achieve that end. But otherwise, IRAA is a community of sound engineers, for sound engineers, by sound engineers. And I believe that the IRAA award for any sound engineer has more meaning for him because it is given by his fraternity rather than any award he might get from any other award platform. So, that's something very great and IRAA has that as a mission

and of course to recognise Indian sound engineering.

As we go forward, we will see Indian music engineered by Indian sound engineers that will have global impact. And IRAA is the platform where we invite, as Pramod said, a lot of independent music to submit their nominations. So, IRAA is a platform for recognising talent not only in sound engineering but even in music talent and it has a great role to play in India especially because there is a lot of content boom in India. There are a lot of sound engineers. I think there are more than a couple of lakh sound engineers in India. We've received 1,400 nominations this year. There's a long road to go.

But believe you me, that as IRAA's credibility and his hard work and the hours of work by the jury play their role and IRAA increases in its reputation, I think very soon we will have tens of thousands of nominations, absolutely. And that will be the day that IRAA will come into its own."



**Anil Chopra, Founder of the IRAA Awards delivers the keynote address for IRAA 2024**

**Hussain**, whose exceptional artistry and innovation have redefined Indian classical music on a global stage. Renowned as one of the greatest tabla virtuosos in history, Ustad Zakir Hussain has built an extraordinary career as a percussionist, composer, and cultural ambassador. His brother **Ustad Fazal Qureshi** accepted the award on his behalf and read out a heartfelt message sent by Ustad Zakir from the United States. *Sadly, Ustad Zakir Hussain passed away just as this publication was going to press.*

Ustad Zakir Hussain's illustrious journey is adorned with numerous accolades, including the **Padma Shri**, **Padma Bhushan**, and the United States National Heritage Fellowship. He was named the **Kyoto Prize Laureate in Arts and Philosophy** in 2022 and received the **Aga Khan Music Award** in Oman the same year, celebrating his contributions to sustaining and enriching musical traditions worldwide. His cinematic accomplishments include composing scores for films like *In Custody* and *Vanaprastham*, earning critical acclaim for his ability to merge classical and contemporary musical styles.

The **Dronacharya Award for Shaping Audio Education in India** at the IRAA 2024 recognised the remarkable contributions of **Manohar Kunte**, a revered

his unparalleled expertise in the field.

He was also a founding jury member of IRAA. Mr. Kunte's vision and dedication to advancing audio education and recording arts have left an enduring legacy. The award celebrated his lifelong commitment to nurturing talent and setting new benchmarks in India's audio industry.

Manohar Kunte spectacularly surmised his feelings about the award in one word.

## IRAA Studio of the Year

The **Studio of the Year Award** was presented to **The Audio Guys – C Studio**, a standout facility that has consistently set new benchmarks in sound and music production. This prestigious award honours studios that exemplify excellence in both their technical capabilities and creative output. The Audio Guys – C Studio, founded by **Jayakrishnan Nalinkumar**, **Omkar Tamhan**, and **Anupam Sathe**, has become a key player in the industry, known for its cutting-edge infrastructure and a team of talented engineers and producers. The studio has gained widespread recognition for its ability to push the boundaries of audio production, providing top-tier services to a variety of projects, from music albums to sound design for films and advertisements. The team's focus on innovation, combined with an unwavering commitment to quality, has made them a trusted name in the industry. Their work has been instrumental in shaping the sound of contemporary Indian music.

Receiving the Studio of the Year Award was a testament to their dedication to excellence in the audio production space. With their state-of-the-art facilities and forward-thinking approach, The Audio Guys – C Studio continues to inspire the next generation of audio engineers and music producers, and their influence on the industry is set to grow even further.

## Industry Insights: Celebrating Excellence with IRAA and Genelec

**Vijay Benegal**, the future Director of the IRAA July 2025, remarked upon the success of this year's IRAA show and shared a few pearls of wisdom for the next generation of sound engineers.

"I'm really stoked about the fact that we've got so many independent productions now. This country has historically lacked representation for independent music, as it's mostly been dominated by film music, folk, and devotional genres. So, it's fantastic to see such a proliferation of independent productions. Not only are there more of them, but the creativity and quality of the work being produced are incredibly impressive. One of the great things IRAA has afforded me is the opportunity to hear what's happening in the music scene, gain an understanding of who's out there, and see what's possible from all these musicians. After all, it's impossible to know every single artist, so this platform is truly fantastic.

Speaking of tools, Genelec monitors are phenomenal. They're absolutely great. My first major award, the IIFA for *Dil Chahta Hai*, was recorded entirely using Genelec monitors. While I don't currently own a pair—mostly because



**Manohar Kunte receiving the Dronacharya Award for Shaping Audio Education in India**

sound engineer and passionate mentor whose work has transformed the landscape of audio education in the country. As the chief conductor and syllabus designer for the **Advanced Certificate Course in Sound Recording and Reproduction** at the **University of Mumbai**.

An alumnus of FTII Pune, Mr. Kunte's career began under the mentorship of iconic sound engineers, the late **Shri Mangesh Desai** and **Shri Vasant Parmar**, at Rajkamal Kalamandir, Mumbai. He has over 60,000 hours of recording experience. His illustrious career includes collaborations with legends such as Pandit Ravi Shankar, Pandit Bhimsen Joshi, and Kavita Krishnamurthy, showcasing



**Shruti Jayakrishnan and Rohan Puntambekar accepting the award for Studio of the Year**



**Vijay Benegal wins the award for Independent Music – Recording, Mixing, Mastering – World, Fusion Music**



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they're a bit expensive and just outside my budget—I would love to. They're fabulous, an exceptional reference set, and I would never say no to mixing on Genelec.

As for advice, I'd say, stay true to your craft. Don't compromise on achieving the best possible quality for the project you're working on. There will always be pressure to finish quickly, but if something doesn't sound right to you, you must invest the time, energy, and effort to ensure it does. Ultimately, it's your job, and you are the final judge of what you produce. So, if something sounds bad to you, do everything you can to make it sound good."

**Raag Sethi**, who served on the jury and was himself a recipient of numerous awards that night, was ecstatic about his wins and his experience serving on this year's jury.

"This is the second time I've been honoured to be a part of the IRAA jury. The first time I served on the jury was when the independent category was first introduced. Since I primarily work in the independent space, it was great

**Donal Whelan**, of Hafford Mastering from the UK, spoke positively about his experience serving on the IRAA jury for the first time this year. He reflects about the changes in the Indian music soundscape, noting that it grows more mature and is evolving to the international standard.

"The experience of working on the jury has been really rewarding. I was very honoured to be asked in the first place. I've known about the IRAA for many years and have attended a few of the ceremonies over time.

The process itself was fascinating. I was given 84 songs from a number of different categories to listen to and judge. The first thing that struck me was what an amazing opportunity it was to experience such a wide variety of music. I selected my winners from those 84, and after that came the final judging stage. This involved a meeting with the other jurors, which was a lot of fun. Reflecting on the Indian music scene, Donal observed, "It feels more self-assured and confident now. That's not to diminish the charm of classic Hindi film songs, which have their



**Raag Sethi accepting one of his many awards for the evening**



**Shantanu Hudlikar receives a token of appreciation for his service on the IRAA 2024 Jury from Gaurav Sood**

to see an association like IRAA, which is known for its excellence in technically creative fields, acknowledge what's happening in the independent music scene as well. I feel truly honoured to be sitting alongside some of the stalwarts of the industry as an independent musician and producer.

Regarding Genelec and its role in the audio industry, while I haven't used Genelec monitors myself, anyone in the audio space knows about Genelec. They have a long legacy and immense prestige associated with studio monitors. It's great to see Genelec partnering and sponsoring something like IRAA because it makes sense for such a technical field to be supported by one of the biggest studio monitor manufacturers in the world. That partnership is a natural synergy." Sethi advised artists that are new to the industry by telling them to keep at it and never give up.

"In this industry, consistency is key. You cannot rest on a release you did before, a prize you won, or an award you received. You have to keep working at it and continually hold yourself to a higher standard every single time. If you do that, hopefully, you'll be fine."

own magic, but today's studio setups, equipment, and engineers have grown immensely in sophistication. The output from India today is of a very high quality. I think the Indian music scene is going from strength to strength.

**Shantanu Hudlikar** shares his opinions on Genelec as an industry standard. "While I don't use them personally, I can attest to their outstanding reputation. They are an industry standard in India, known for their exceptional frequency response and suitability for mixing and recording. The representation and support that Genelec provides in this country stand out, making them a preferred choice for many professionals.

To those entering the industry, my advice is simple: stay true to the music. Focus on mastering your craft and being the best version of yourself. This industry isn't a competition; it's about doing the best work possible and making music central to your life."

**Urmil Pandya**, one of the nights winners, speaks about how the IRAA awards make him feel appreciated and let him know that his craft is respected.



**Donal Whelan being conferred with a token of appreciation for his service on the IRAA 2024 Jury**



**Urmil Pandya receiving his award for Sync Sound Recording – Documentaries from Vijay Benegal, Gaurav Sood and Ramesh Chetwani**





**Tubby, Independent Music - World, Fusion Music - Music Producer**

“It feels truly wonderful to be appreciated, especially when it comes to aspects of work that aren’t always visible on the surface. Sound often takes a backseat, hidden behind the scenes, so it’s gratifying when someone acknowl-

edges and highlights its importance, bringing it to the forefront. Thank you so much for recognising and valuing this contribution!”

**Tubby (Indrajit Sharma)** recalled his experience on the jury as enlightening, stating: “I was thrilled to see the entries that came to me. It was fascinating to witness the immense talent present in our country when it comes to music production, mixing, and mastering. What stood out the most was that, despite Mumbai being a hub for music, remarkable work was coming from other regions such as Gujarat, the South, the North, and even parts of the East. As a jury member, it was exciting to assess music that originated outside the typical Bombay film or music scene.

I’ve been exclusively using Genelec monitors for nearly 10–15 years. In every studio I’ve worked in, I’ve always encountered Genelec’s main and near-field monitors. I believe Genelec has mastered the intricacies of what professional audio should sound like, enabling professionals to assess their work accurately. Their technology ensures sound quality is optimised across all devices and platforms. Genelec truly understands the requirements of the pro audio industry and consistently delivers innovative and superior-quality loudspeakers. They are, in my opinion, the best in the industry.”

**JBL PROFESSIONAL BRINGS THE 25TH HORNBILL FESTIVAL...**

*(Continued from page 17)*

overwhelmingly positive. The JBL VTX A12 system, in particular, has received considerable acclaim for its performance, particularly in challenging outdoor environments. Sound engineers have praised the VTX A12 for its advanced waveguide technology and linear array design, which ensures uniform sound coverage across large venues. This design eliminates distortion and provides consistent audio quality for every audience member, even in expansive outdoor settings.

Artists, too, have highlighted the flexibility of the VTX A12, noting its ability to handle a wide range of music genres with ease. From delicate acoustic performances to high-energy electronic music, the system maintains its fidelity and dynamic range throughout, ensuring that every note is crisp and powerful. The VTX A12’s robust performance under pressure, coupled with its ease of setup, makes it a preferred choice for large-scale events such as the Hornbill Festival. The ability to seamlessly cover a variety of musical styles with the same system makes the VTX A12 a standout product in JBL’s lineup.

In addition to JBL’s audio systems, Martin Lighting’s solutions have also been praised for their dynamic effects and seamless integration with the audio setup. Martin’s lighting technologies are designed to synchronise effortlessly with JBL’s sound systems, creating a truly immersive experience for the audience.

JBL’s involvement in large-scale events like the Hornbill Festival plays a key role in the company’s strategy to strengthen its brand positioning and expand its reach within the Indian market. One of the primary benefits of sponsoring such high-profile events is increased visibility. The Hornbill Festival provides JBL with a unique platform to showcase its products to a broad and diverse audience, both local and international. This exposure boosts the company’s recognition and ensures that its products are seen by a wide range of potential customers.

Moreover, by aligning itself with a cultural event like the Hornbill Festival, JBL strengthens its connection to modern lifestyles and youth culture, two key pillars of its brand identity. The festival, with its mix of traditional and contemporary music, perfectly complements JBL’s image as a brand that is not just about sound, but also about vibrant, contemporary living. This partnership helps position JBL as a key player in the Indian entertainment scene, particularly in music and audio technology.

Live events such as the Hornbill Festival also allow for direct interaction with the brand’s products, which is a powerful tool for building brand loyalty. Attendees at these events experience JBL’s products first-hand, whether it’s enjoying the immersive sound of JBL’s VTX A12 system or using portable JBL speakers in the festival’s more intimate

settings. This hands-on engagement creates a genuine emotional connection with the brand, fostering loyalty among both new and existing customers.

**Strengthening JBL’s Market Position in India with Brand Alignment**

JBL’s participation in music events also reinforces its identity as a brand deeply rooted in the world of music. The Hornbill Festival, with its live performances from a variety of bands, is the perfect venue to connect with music lovers, performers, and audio enthusiasts. JBL’s active presence in such events ensures that the brand is seen as an integral part of the music scene, helping it to build a strong connection with music enthusiasts across India.

Additionally, JBL’s involvement in regional festivals such as the Hornbill Festival showcases its commitment to understanding and embracing local cultures. By engaging with cultural events that resonate with local communities, JBL demonstrates that it is not just another global brand, but one that is attuned to the values and preferences of the Indian market. This localized approach helps build trust and loyalty among Indian consumers, who appreciate brands that take the time to understand their unique needs.

Partnerships with events like the Hornbill Festival are not just about short-term visibility. They offer long-term opportunities for growth and expansion. By cementing its presence at such iconic festivals, JBL is positioning itself as a leader in the Indian live events and music entertainment space. This, in turn, opens the door to further collaborations with niche events and new regions across India, paving the way for future opportunities and deeper engagement with the Indian market.

India represents a key market for JBL Professional. By connecting with audiences, aligning with local culture, and offering hands-on experiences with its products, JBL builds lasting relationships with its customers. Its continued engagement with the Indian music and entertainment scene not only positions it as a leader in the industry but also fosters growth and brand loyalty that will contribute to its long-term success in the market.

JBL Professional’s contributions to the 25th Hornbill Music Festival exemplify the synergy between cutting-edge technology and cultural celebration. From the unparalleled sound quality of the VTX systems to the dazzling visuals provided by Martin lighting, JBL and its partners brought Nagaland’s rich heritage to life. Through partnerships like the Hornbill Festival, JBL aims to demonstrate their commitment to providing world-class audio solutions that elevate live events.



# IRAA WINNERS 2024



Abhijeet Sapre, Nikhil Katkar, Vaibhav Marathe, Vicky Arolkar - Foley Artist, Foley Engineer Web Series - Hindi



Abhiram Unnikrishnan, Traditional Folk Music - Music Production



Adhithya Sivakumar, Hanish Taneja, Song Recording & Mixing Web Series - Hindi



Ajinkya Dhapare, Traditional Folk Music - Recording, Mixing, Mastering



Allwin Rego, Rinku Boro, Sound Editor Effects & Ambience for Documentaries



Anil Pawar, Harish Nath, Karan Arjun Singh, Ram Kishan Nath, Sujit Luhar, Foley Artist, Foley Engineer (Film or Web Release) - Regional



Avi Patel, Indian Classical Music - Vocal Recording, Mixing, Mastering



Bulganin Baruah, Dialogue Editor, ADR Engineer for Documentaries



Nirmal Rathod, Independent Music - Recording, Mixing, Mastering - Rock, blues, metal



Franco Bhalla, Sameer Chaurasia, Song Recording & Mixing Web Series - Regional





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# IRAA WINNERS 2024



Ganesh Marar, Sync Sound Recording (Film or Web Release) - Regional



Ishit Kuberkar, Devotional, Spiritual Music - Recording, Mixing, Mastering



Jhanu Chanthar, Music Producer Web Series - Regional



Karan Arjun Singh and Just Foley team, Foley Artist, Foley Engineer (Film or Web Release) - Regional



Karnail Singh, Rajendra Gupta, Sajjan Chowdhry, Foley Artist, Foley Engineer (Film or Web Release) - Hindi



Kirk Braganza, Shashwath H Jagadeesh, Sound Editor Effects & Ambience for Web Series - Hindi



Kittu Mykal, Films (Theatrical OTT) - Song Recording, Mixing, Mastering - Hindi



KS Maniratnam, Manoj Kumar, Vishnu M Namboothiri, Independent Music, Recording, Mixing, Mastering - Acoustic



Manjith Paul, Sound Designer for Short Films, Short Films Mixing



Mark K Robin, Films (Theatrical, OTT) - Song Music Producer - Hindi



# IRAA WINNERS 2024



Mayur Agam, Independent Music - Rap and Hip-Hop - Music Producer



Bandish Projekt, Independent Music - Electronic - Music Producer



Mohit Kachalia, Shilajit Chakraborty, Sound Designer (Film or Web Release) - Regional



Nagarjuna Thallapalli, Prasanna Hanuwate, Dialogue Editor, ADR Engineer for Web Series - Regional



Pranam Pansare, Mixing Web Series - Hindi



Pritam Das, Sound Designer for Web Series - Hindi



Ranjith Meleppat, Devotional, Spiritual Music - Music Production



Rupak Thakur, Vijay Benegal, Independent Music - Recording, Mixing, Mastering - World, Fusion Music



Sampath Alwar, Sync Sound Recording (Film or Web Release) - Hindi



Sarath Kumar M, Vijay Kumar V, Foley Artist, Foley Engineer Web Series - Regional



# IRAA WINNERS 2024



Sarath Mohan, Oussama Ayachi, Mixing (Film or Web Release) - Foreign



Saumit Deshmukh, Sound Editor Effects & Ambience (Film or Web Release) - Hindi



Shrikanth Sundar, Sukumar Nallagonda, Vijay Rathinam MPSE, Sound Editor Effects & Ambience for Web Series - Regional



Taz James, Independent Music - Rock, Blues, Metal - Music Producer



Tejas Jadhav, Sound Designer for Web Series - Regional



Varun Parikh, Independent Music - Recording, Mixing, Mastering - Electronic



Vishnu Govind, Mixing (Film or Web Release) - Regional



Vivek Thomas, Films (Theatrical, OTT) - Song Recording, Mixing, Mastering - Regional



Ydv, (Dinesh Yadav) Instrumental Music (Non-Classical) - Music Production



Zahir Bandukwala, Sync Sound Recording Web Series



*India's music scene is buzzing with new releases that blend bold rhythms and fresh styles. From soulful indie ballads to chart-topping Bollywood hits, these songs have us grooving our feet and swaying to their rhythms. Read on and discover the talent behind the latest tracks from the Indian Music scene!*

### Jo Tum Mere Ho:

**Anuv Jain**, celebrated for his soulful indie tracks, delivers yet another gem with Jo Tum Mere Ho. The song has amassed an astounding 123,874,016 views and continuing to climb.

The technical brilliance behind this track elevates it to a masterpiece. The recording, mixing, and mastering were skilfully handled by **Angad Bahra** from **Uneven Studios**. A multi-platinum Record Producer, Audio Engineer, Composer, and Guitarist from Punjab, Angad's expertise shines through in the song's pristine sonic quality. Complementing this was the Dolby mix by **Somanshu**, adding depth and richness to the listening experience. Uneven Studios has worked with Anuv Jain on his previous masterpieces as well, cementing its place in the indie music scene.

Released under the recording label **Universal Music India Pvt Ltd**, "Jo Tum Mere Ho" exemplifies Anuv Jain's unique ability to blend heartfelt storytelling with minimalist melodies. Anuv's latest is a silent declaration of affection, and we love it.

### Aaj ki Raat:

The song Aaj Ki Raat from the Bollywood horror film *Stree 2* has become a sensation since in the past two months, raking

in an impressive 600 million likes on YouTube. While its catchy blend of ghazal, lounge music, and an item number vibe has struck a chord with audiences, it's the exceptional technical craftsmanship that truly sets this track apart.

The music for Aaj Ki Raat was composed by the renowned duo **Sachin-Jigar**, known for their innovative approach to music production. Together with **Abhishek Singh** from **White Noise Collectives** studio, they designed, arranged, and produced the track, creating a distinctive sound that fuses traditional and modern elements. Their careful blending of genres brings depth and richness to the song, making it both hauntingly melodic and irresistibly rhythmic.

Recording Engineer **Swar Mehta**, from **White Noise Collectives**, played a pivotal role in capturing the nuances of the track. Known for his work on the *Murder Mubarak* album, Swar's expertise is evident in the song's pristine sound quality. The clarity and balance between the vocals and the instrumental arrangements speak volumes about his attention to detail in the recording process.

Mixing and mastering the track was the highly acclaimed **Eric Pillai** from **FSOB Studio**, a name synonymous with sonic excellence in the Indian music industry. With an impressive portfolio working with artists like **Pritam**, **Sajid Wajid**, **Mithoon**, and **Anirudh**, Eric's touch is unmistakable.

His experience in achieving the perfect balance of frequencies, especially when blending diverse musical elements, shines through in Aaj Ki Raat. The track's polished sound and cohesive feel are a testament to Eric's mastery in mixing and mastering, ensuring that every note resonates with clarity and depth.

Released under **Saregama India Ltd**, Aaj Ki Raat is a chart-topping hit!

### Raanjhan:

Raanjhan, a soulful track from the thriller Bollywood film *Do Patti*, has gained 27 million views, captivating listeners with its themes of love, longing, and heartbreak. While the emotional weight of the song is carried by its lyrics and **Parampara Tandon's** expressive vocals, the technical production plays a crucial role in bringing it to life.

Composed by **Sachet-Parampara** and produced alongside **Prasanna Suresh and Raghav Sharma**, the song features a delicate yet powerful arrangement. The music's orchestration complements the song's emotional depth, with a balance of minimalism and richness.

Parampara's vocals were recorded at **Sachet-Parampara Studio (SP Studio)**, ensuring clarity and warmth, allowing her emotional performance to shine through. The mix and master, handled by **Aftab Khan** from **Headroom Studios**, bring the track together with precision. Known for his work on the background tracks of series like *Aarya* and *Mirzapur*, Aftab's expert mixing balances Parampara's voice with the instrumental layers, creating a cohesive and intimate sound. The final mastering ensures the track's polished delivery across all platforms.

Lyrical, Kausar Munir's words resonate deeply with the song's production, making Raanjhan a beautiful blend of sound and sentiment.

### Peelings:

The much-anticipated *Pushpa 2:*

*The Rule*, starring **Allu Arjun** and **Rashmika Mandanna**, has kicked off its promotional campaign with a bang, unveiling the electrifying *Peelings* song. The Telugu track has already garnered a staggering 23 million views, and shows no signs of stopping there, with fans praising its vibrant energy and unforgettable beats.

Composed by **Devi Sri Prasad**, the song is a masterclass in regional music elevated by Bollywood-style grandeur. Singers **Shankar Babu Kandukoori** and **Laxmi Dasa** deliver an explosive vocal performance, backed by lyrics penned by the iconic **Chandrabose**. For the Malayalam version, lyricist **Siju Thuravoor** steps in to give the song a unique regional touch.

The track was mixed and mastered by **A. Uday Kumar** at **DSP Studios** - Chennai and recorded by recording engineers **A. Uday Kumar**, **T. Uday Kumar**, **Suresh Kumar Taddi**, and **Raam Gandikota**. Released under the **T-Series music label**, the song showcases a blend of lyrical brilliance and technical finesse.

As *Pushpa 2: The Rule* gears up for its grand release, *Peelings* has an infectious energy and the song is yet another testament to the enduring appeal of this blockbuster franchise.

*All recorded labels, independent artists and channels are requested to share new projects with the PALM Expo Magazine team if they wish to get featured in the 'Unequal Music' column as the team explores the voice and talent of budding artists in this recurring feature. To share releases for this column, contact:*

**Shanaya Sequeira**

shanaya.sequeira@hyve.group



**Peelings** composed by **Devi Sri Prasad** (in pic), takes regional music to Bollywood style grandeur

## PROJECT SPOTLIGHT: RENTAL COMPANIES

India's live sound scene is booming, setting the stage for a new era in audio excellence. From massive music festivals to extravagant weddings and corporate galas, the demand for impeccable sound systems has skyrocketed, driving innovation and competition among sound rental companies. In *PALM Expo Magazine's Sound Reinforcement* issue, we spotlight the trailblazers of the industry, India's top sound rental companies, who are making waves with cutting-edge technology and flawless execution. These experts are not just meeting the demands of live events; they are redefining what's possible. Read on to see PALM's top ranked list of path breakers in the Indian live sound industry!

# SHAPING SOUNDSCAPES: INDIA'S LEADING LIVE SOUND RENTAL COMPANIES

### Mega Sound

**Mega Sound**, led by its visionary Founder and CEO, **Siddharth Chauhan**, has emerged as a trailblazer in the Indian live audio production industry. With an unwavering commitment to excellence and an impressive portfolio of high-profile events, the company stands at the forefront of live event execution, redefining standards for sound and production quality across India.

At the heart of Mega Sound's success lies its arsenal of state-of-the-art equipment, meticulously curated to meet the demands of events spanning varied scales and genres. The inventory features:

- **Speakers:** L-Acoustics K1, K1SB, KS28, K2, Kara, and A Series systems

- **Mixing Consoles:** DiGiCo Quantum 5, Quantum 338, SD12, Yamaha CL5, and Avid S6L
- **Microphones:** Shure and Sennheiser DPA systems
- **Amplification and Signal Processing:** LA-Racks II Avb, Luminex Gigaore, and Direct Out Prodigy

This advanced suite of tools positions Mega Sound as one of the most versatile providers in the live event market. "Our inventory enables us to handle events of any scale with precision and quality," Siddharth Chauhan explained, highlighting the company's readiness to cater to any challenge.

Among the many milestones Mega Sound achieved in 2024, their work on



Mega Sound's set-ups at Maroon 5's debut concert in India, elevated the standard for Live Sound Events in India





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Phoenix Networks pioneered the 360-degree format for concerts in India, visible here in Ed Sheeran's  $\text{+}\text{--}\text{=}\text{×}$  Tour in India

**Maroon 5's** first-ever concert in India stands out. Held on 3rd December at the Mahalaxmi Racecourse in Mumbai, the event was a monumental occasion, drawing over 25,000 fans eager to witness the Grammy-winning band perform live.

Chauhan shared, "Supporting an international act of this calibre was a milestone for Mega Sound. The event demanded top-tier synchronisation of sound, visuals, and logistics, and our team ensured seamless execution."

For this prestigious event, Mega Sound deployed their flagship **L-Acoustics K1 system** alongside **DiGiCo Quantum mixing consoles** to ensure impeccable sound quality. These technologies, combined with precise planning and execution, created an unforgettable experience for both the audience and the band.

Over the years, Mega Sound has successfully executed over 2,000 weddings, 500 corporate events, and 700 concerts. Managing operations on this scale requires a delicate balance of technical expertise, logistical efficiency, and strong client relationships.

"Our ability to operate on such a large scale is driven by technical excellence, skilled manpower, and exceptional client relationships," Chauhan noted. "Our investment in the latest technology and our team's continuous training allow us to stay ahead of industry trends. By tailoring solutions to specific requirements and fostering trust with our clients, we consistently exceed expectations."

Mega Sound's emphasis on training ensures its team of sound engineers remains at the cutting edge of industry advancements. Regular skill enhancement workshops and exposure to global best practices equip the team to deliver consistent results, no matter the event's scale or complexity.

Beyond concert events like the Maroon 5 concert, Mega Sound has consistently delivered premium-quality audio solutions for a diverse range of events across India. Whether orchestrating sound for an intimate wedding or a high-profile corporate gathering, the company's attention to detail ensures every project is executed flawlessly. "The diversity of events we handle requires us to adapt and innovate constantly. Each project is an opportunity to refine our approach and deliver something extraordinary," Chauhan stated.

Mega Sound's success is not just about advanced equipment or technical expertise; it's about creating memorable experiences that resonate with audiences long after the event. With a focus on continuous improvement and an eye on the future, the company is well-positioned to further elevate India's live event landscape.

From their cutting-edge inventory to their ability to cater to global standards, Mega Sound is a name synonymous with reliability, innovation, and excellence in live event production.

## Phoenix Networks

**Phoenix Networks**, has carved a niche in India's live sound industry. **Animesh Mishra**, Managing Director, shares how the company has come to the forefront of innovation and excellence. Speaking candidly, Mishra reflected

on landmark achievements, groundbreaking inventory, and the evolving live event culture in India.

One of Phoenix Networks' crowning accomplishments was hosting Ed Sheeran's concert, the first in India to feature a 360-degree stage format. "The stage was at the centre, and the crowd surrounded it. This concept was executed globally but was a first for India," Mishra shared. The show's monumental success cemented Phoenix Networks' reputation as a trailblazer in live event production.

Phoenix Networks boasts a formidable inventory, including India's largest collection of Meyer Sound systems. "We have the biggest inventory of Meyer in India, with 64 tops and 36 subs. Within a year, this inventory expanded, and we were the first to introduce **Panther** systems in India," said Mishra. He added, "Currently, we have more than 240 boxes in India, and the Panther range has seen exponential growth, with many partners now holding 24 tops each."

On the microphone front, Phoenix Networks leads with an extensive range of **Axient** cordless microphones. "We have the highest number of Axient cordless microphones, specifically **ADX** with **ShowLink** – the updated versions," he elaborated.

Phoenix Networks was also the first in Central India to acquire DiGiCo Quantum consoles. "Not just one, but we have two **Quantum** consoles in India, where previously, only SD10 models were in use," noted Mishra. "Our inventory includes DLI racks with DX racks and Giga cards. Unlike standard packages, we've enhanced the inventory to cater to larger shows with more inputs and outputs."

Mishra emphasised the profound change in audience behaviour following the pandemic. "Covid changed people's perception. Earlier, they weren't as eager to experience life. But now, they're more invested in activities like live events," he explained. This shift is reflected in the growing success of ticketed shows even in smaller cities like Indore, Lucknow, and Hyderabad. "Previously, ticketed shows in these cities didn't sell out quickly. But now, tickets are sold within minutes or hours, as people have more spending power and a desire to live life fully."

Phoenix Networks also ventured internationally with significant shows in Nepal. Mishra highlighted the success of the two-day **Macomb Fest**, featuring six major artists, as an example of their expanding footprint.

With a firm grip on state-of-the-art technology and a commitment to pushing boundaries, Phoenix Networks continues to elevate the live sound experience in India and beyond. As Mishra succinctly put it, "We've always aimed to enhance our inventory and cater to bigger shows with seamless precision."

Phoenix Networks, under the stewardship of Animesh Mishra, remains a cornerstone of innovation in India's pro audio and live sound landscape. The company's dedication to excellence is poised to drive the industry to new heights.

## NJSM

With a robust inventory, a highly skilled team, and an ambitious outlook,





**NJSM's crew performing rigorous checks prior to the Alan Walker concert in Mumbai**

**NJSM** is on its way to establish themselves as a leading name in India's live sound and event production industry. **Sachit Subramanian**, from NJSM reflects on a transformative year for the company.

Among the many turnkey projects undertaken by NJSM, the **Alan Walker India Tour** stands out. The tour covered nine cities, from which Pune and Mumbai were undertaken by them.

One of the other growing festival that was recently executed by this team was the **Magnetic Fields Festival** in Rajasthan. "We used over 75 Boxes of **d&b Audiotechnik** in a well known but less accessible place Rajasthan for a specially curated festival that attracts a global audience. Magnetic Fields is one of India best kept IP showing off its exclusivity to its fans!" adds Subramanian.

When asked about challenges faced during such large-scale productions, Subramanian credited the team's efficiency and expertise. "Challenges have always been about how well and how quickly one can execute. Our team is very tight-knit, and they are learning and getting better with every show on how to get about doing a DJ show or a live event," he said.

A standout feature of NJSM's arsenal is its crew. "Just before the onset of the season we have upskilled our crew, with help of institutions like ETA, we made sure our crew went through an education program to understand the basics of audio, we believe strongly in education and try never to miss an opportunity to learn" Subramanian noted.

NJSM also takes pride in its inventory thereby helping them cater to a diverse event requirements. "We have a growing inventory of d&b Audiotechnik equipment. We've rationally and aggressively increased our inventory to ensure we can manage all events that come our way. Our current investment

in **SL series** places us as one of the largest inventory holders of d&b audiotechnik in India," shared Subramanian.

Subramanian shared his insights on India's rapidly growing live sound and events market. "The live market trend in India has seen an exponential growth," he said. "Every weekend, a major artist is performing in some city, be it in metro cities or even tier-two cities."

He pointed to example of a large artist tour that's currently underway in India, which included cities like Lucknow that were historically absent from large-scale concert circuits. "The penetration of live events into tier-two cities is remarkable and we as an organisation have been recalibrating our growth story constantly," Subramanian added.

NJSM's strategic focus on expanding its inventory and adopting a forward-looking approach, positions the company as a key & growing player in the evolving Indian live event landscape. With a dedicated team, cutting-edge technology, and a focused vision, NJSM is poised to meet the demands of a burgeoning market.

As Subramanian aptly summed up, "We're here to grow and evolve with every gig."

## **J Davis Prosound and Lighting**

**J Davis Prosound and Lighting** has cemented its reputation as a leading player in India's live sound industry, consistently delivering world-class solutions for events of all scales. Known for their innovative approach and commitment to excellence, the company recently took on the prestigious **Echoes of Earth festival**, a unique celebration of music and sustainability.



**J Davis Prosound & Lighting deploys state-of-the-art K2 Systems at Echoes of the Earth Festival**

**Santana Davis**, Managing Director at J Davis Prosound and Lighting, emphasises the company's focus on tailoring solutions that match the distinct needs of each event. "Echoes of Earth is a significant event for us, it's something unique in the country," he shares. "This festival brings together international and talented local artists, and it's been an honour to handle the live sound for several editions."

For Echoes of Earth, J Davis deployed a complete suite of **L-Acoustics** products across two stages, highlighting their dedication to providing the best audio technology available. The setup included **K2 systems, V-DOSC, KARA**, and **SB28 subs**, all of which ensured superior audio quality throughout the event. "The entire event used L-Acoustics," Santana notes. The integration of these systems showcased the full capabilities of L-Acoustics."

Beyond delivering technical excellence, J Davis is committed to advancing India's live sound ecosystem. Santana underscores the dramatic growth of the live touring scene in the country: "The touring industry in India has seen a tremendous boom this year. Previously, there was no concept of tours in India, artists would do one show, and that was it. Now, they're performing across three, four, or even five cities."

This shift has placed greater emphasis on high-quality sound equipment, with J Davis rising to meet the challenge. Santana explains, "The demand for equipment has skyrocketed compared to pre-COVID times. Today, we are delivering international-level requirements, whether for Bollywood or global acts."

J Davis's ethos revolves around blending technology with meticulous planning and execution. Their ability to adapt to the needs of a rapidly evolving market has been instrumental in transforming live events in India. Santana remains optimistic about the future: "Touring is the way forward. Companies are investing heavily in equipment, and the level of demand we're seeing now is comparable to international standards."

As pioneers in live sound and lighting, J Davis Prosound and Lighting continues to set benchmarks for excellence, ensuring every event they handle—whether a sustainable music festival like Echoes of Earth or a multi-city concert tour, is a seamless and unforgettable experience.

## Reynold's Sound and Lighting

**Reynold's Sound and Lighting**, helmed by Managing Director **Felix Remedios**, stands as a beacon of professionalism and technological innovation in India's event production industry. With a legacy of excellence, the company is committed to delivering high-quality audio, lighting, and technical solutions tailored to the unique demands of every event.

Felix Remedios emphasises the company's philosophy: "We give individual attention to each and every one of our events and try to make it the best possible concert or experience for the client and the audience." This ethos is evident across Reynold's extensive portfolio, which includes corporate events, weddings, large-scale concerts, and government functions.

Reynold's has recently handled several prestigious events, including the

**IPL Opening Ceremony**, a 360° stage setup for **Yuvan Shankar Raja's U1 - The GOAT concert**, and an electrifying show by **Alan Walker**. Each of these events demanded meticulous planning and technical excellence.

"The IPL was particularly challenging due to the massive inventory of audio and lighting equipment required," Remedios shares. "We ran DANTE Audio and ArtNet Lighting via fibre across the entire stadium. The planning and design process were crucial in ensuring everything ran seamlessly."

To maintain this level of excellence in India's live events market, Reynold's relies on decades of experience, constant innovation, and a commitment to introspection. "No company or group is perfect," Remedios explains. "We focus on improving our internal processes and refrain from judging our performance by what others in the industry are doing. This keeps us grounded and forward-looking."

Reynold's ensures optimal sound quality by investing in world-class equipment and adopting international standards. The company employs top-tier loudspeakers, consoles, and microphones, including **d&b audiotechnik's Array Processing technology**. This ensures consistent sound levels across venues, enhancing the experience for every attendee.

Remedios elaborates: "Even the amplifiers that drive the PA are spec'd with features few can claim. We work closely with manufacturers to maximise the potential of their technologies and often brainstorm with them for feature requests and new product ideas."

The Indian live events industry has witnessed significant growth, with a surge in international tours and multi-city tours by Indian artists. Remedios sees this as a promising sign. "Judging by this year's shows, the future looks great," he says. "We've had more international acts and Indian artists embarking on extensive tours, which is fantastic for the industry."

Reynold's contributes to this vision by setting benchmarks in quality and innovation. From corporate gatherings to sold-out concerts, their dedication to precision and client satisfaction continues to redefine industry standards.

Reynold's unwavering focus on client needs and technical precision makes it a trusted name in the live events space. As the industry evolves, the company remains committed to staying ahead of the curve, blending state-of-the-art technology with decades of expertise to deliver exceptional experiences for audiences and performers alike.

## Electrocraft

**Electrocraft** is a stalwart in India's Pro Audio Landscape. Under the guidance of **Roger Drego**, Managing Director, Electrocraft continues to raise the bar in sound rental services. Known for their involvement in high-profile events, the company consistently delivers cutting-edge audio solutions for large-scale gatherings. With a commitment to innovation, Drego highlighted their use of advanced technologies like CODA Audio systems and meticulous planning to ensure seamless execution at every event.

One of Electrocraft's standout annual contributions is to the **Mahashivratri** celebrations at the Isha Foundation in Coimbatore. With an audience exceed-



Reynold's Sound & Lighting's set-up stands tall and delivers at Alan Walker's tour



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Electrocraft's newly acquired CODA Audio systems resound impressively at Falguni Pathak's Navratri Celebration in Mumbai

ing 700,000, this event demands impeccable sound coverage and clarity over an expansive area. "The Mahashivratri celebration is one of the biggest events we work on annually," Drego shared. He emphasised the scale of the event, including extensive stage setups, a multitude of audio channels, and the collaborative efforts required for flawless execution.

Drego also shed light on the importance of collaboration with artists and other professionals, citing performances by renowned musicians like **Shankar Mahadevan** as highlights of the night-long musical celebrations. "The music is as significant as the spiritual experience," he noted. Electrocraft's ability to deliver audio solutions for such a massive audience reinforces their status as industry leaders.

For **Navratri 2024** in Mumbai, Electrocraft introduced their recently acquired **CODA Audio** range to the Indian rental market. This event demonstrated their technical prowess with a comprehensive setup featuring **12 AiRay units** and **2 CiRay** per side for the main PA, complemented by six SCV-F single 18" subwoofers flown behind the main array. Outfill coverage was achieved using three **APS** units, while 24 **SCP dual 18" ground-stacked subwoofers** delivered a powerful low-frequency response. Front fills consisted of eight **Hops7Pro** units, ensuring detailed sound for attendees closest to the stage.

To handle the vast venue, delay towers were equipped with two CiRay units and six ViRay per side. All systems were powered by the high-performance **Coda Linus 14D amplifiers**, renowned for their precision and reliability. Mixing duties were managed on an **Avid S6L console**, with artist monitoring achieved through 16 wireless in-ear monitors and 12 monitor wedges.

"We introduced CODA Audio to the rental market here in Mumbai for Navratri 2024, and the results were exceptional," Drego remarked. "The system delivered unparalleled clarity and power across the venue, setting a benchmark for future events."

Reflecting on changes in the live sound industry, Drego highlighted the increasing presence of larger players and growing inventories. He noted, "The live sound industry has gone to another level with bigger and better inven-

tories. Never companies are game changers, and we are proud to collaborate with them on projects."

Electrocraft's adaptability extends to leveraging new technology and collaborating with leading manufacturers. "We are in constant contact with manufacturers, brainstorming for feature requests, software functionality, and hardware suggestions," Drego added, emphasising their proactive approach to staying ahead in the market.

With a growing number of international acts touring India and Indian artists embarking on multi-city tours, Drego is optimistic about the industry's trajectory. "Judging by this year's shows, the future looks bright," he said. Electrocraft's investments in cutting-edge equipment and commitment to excellence ensure they remain at the forefront of India's live sound rental industry.

From spiritual gatherings to festive celebrations, Electrocraft's meticulous attention to detail and technological innovation continue to elevate the live event experience in India. Their approach underscores a dedication not only to meeting international standards but also to setting them, solidifying their reputation as a cornerstone of the country's pro audio landscape.

The evolution of the Indian pro audio industry reflects a dynamic synergy between technology, creativity, and an ever-growing demand for quality sound experiences. From embracing global trends to fostering innovation at home, the industry has firmly established itself as a hub for both artistry and technical prowess. Perspectives from leading sound rental companies underscore the sector's resilience and adaptability, pointing towards a promising future driven by advancements in equipment, an expanding talent pool, and increasing investments in live and virtual soundscapes.

As the industry navigates challenges and leverages opportunities, collaboration among manufacturers, rental firms, and end-users will remain critical in shaping the next chapter of India's pro audio journey—one that resonates with excellence and vision.



## What Now?

(Continued from page 36)

The music scene is booming in India. Shows in most cities, big, small and medium. So many stars coming up. So good to see the range and diversity.

Even better to see people come out in numbers to share an experience.

I see fewer and fewer phones come out.

Hopefully screen is just too passe. People are fed up with being trapped behind them and want to step out and enjoy the LIVE experience.

Fun exciting times for my beloved profession. Hope every one of you will stretch both effort and creativity to expand the audiences experience and build a great body of work.

Not just in the big metros, but in every city, town and community where music is allowed to roam free and bring out the best in people.



# Revolutionising India's Pro-Audio Landscape

*Founded on the core values of innovation, customer-centric service, and robust engineering, **N-Labs** is an emerging leader in the Indian pro-audio manufacturing industry. In this article Founder and CEO, **HEMAL BHATT** has an insightful conversation with **PALM Expo Magazine**. In Part 2, we explore N-Labs' role in the industry, their client engagement philosophy and N-Labs' future aspirations for both the Indian and global markets. Under Bhatt's leadership, N-Labs' unique approach combines decades of hands-on experience in the audio rental business and local manufacturing techniques, making them highly attuned to the challenges and needs of their customers.*

## Bridging the Gap to Meet Global Standards with Local Expertise

One of N-Labs' strengths lies in its ability to deliver high-quality products at competitive prices, a balance achieved through their **in-house manufacturing process**. Bhatt notes, "At N-Labs, we have the highest standards. Not only in India but China as well, we have access to the latest technology. Plus, we have our own semi-conductors by reputed brands like **Toshiba ON, KEC & CDIL** as well. They make OEM semi-conductor for us. So, we have our manufacturing part and raw material part sorted in such a way that we meet the highest standards. Not just international, the highest quality standards and performance which is delivered to the customer at very affordable cost."

By combining international standards with local manufacturing expertise, N-Labs is able to offer products that not only meet the demands of the Indian market but also appeal to customers worldwide. The company relies on reputed brands like Toshiba for their semiconductor technology and has developed a robust in-house design process that allows them to create prototypes, rigorously test them, and release products after ensuring their reliability.

## OEM & ODM Services: Expanding Beyond Pro-Audio

In addition to manufacturing pro-audio equipment, N-Labs offers **OEM** (Original Equipment Manufacturer) and **ODM** (Original Design Manufacturer) services. Bhatt proudly shares, "We are the only Indian manufacturer who has 100% in-house manufactured products for pro-audio. We are open to tie-ups with different speaker manufacturers."

This vertical integration and ability to cater to custom audio solutions have positioned N-Labs as a versatile player in the industry. Their expertise in designing speaker cabinets, active line arrays, and other audio systems sets them apart from competitors who rely heavily on outsourcing.

## Challenges and Industry Landscape

Despite their rapid growth, N-Labs faces challenges, particularly in India's limited **pro-audio ecosystem**. Bhatt highlights that while the market is growing, there is still a gap in the infrastructure needed to develop high-end audio products entirely within India. "The biggest challenge for a pro-audio company in India, is lack of ecosystem in designing and developing a product from semi-conductor to a ready-made system. We get the chips here. We sell the product to the customer, but there is a very big gap in the ecosystem. Like developing the product from a semi-conductor to a ready-made product. That product lifecycle is challenging. There is also lack of foreign brand players, because they feel the Indian market is very small. Even if we get the chips here, there is a lack of research and development from the global players into India. They don't see a future in India in the pro-audio market. This is the biggest challenge according to me." To address this, N-Labs has established

a core subsidiary in China, where they leverage advanced manufacturing capabilities to bring top-quality technology back to India. "In the next decade, we might still not have a 100% Indian ecosystem. But we are growing," Bhatt acknowledges. He highlights that the sector is overlooked and does not garner as much interest as other industries, case in point the EV industry. After the chip is manufactured in India, the problem is no longer the investment but the development into a final product.

## Listening to the Customer: The Role of Feedback

N-Labs' focus on customer satisfaction extends beyond just offering high-quality products. The company has a dedicated feedback system, where customer input is directly reviewed by Bhatt himself. "Every feedback is centrally handled by me personally. We try to recreate the scenario in our R&D facility, we check it, and we find a solution to improve that issue," Bhatt emphasises.

Hemal Bhatt explains that at N-Labs, they take great pride in their **in-house manufacturing process**. The company designs each product from scratch, meticulously selecting every semiconductor component. They create prototypes, test multiple patterns, and finalize the design, a process that takes about 90 days. Once the product is ready, they release it for rigorous testing by rental companies over 6-7 months, gathering feedback on repairs, quality, and other aspects. Only after passing this testing phase is the product launched in limited quantities to the open market. Bhatt emphasizes that N-Labs never experiments with customers; they conduct thorough research in-house before releasing any product. After six months, if no complaints or feedback are received, the production volume is increased. This deliberate, user-first approach sets N-Labs apart from competitors.

This emphasis on feedback has enabled N-Labs to achieve a remarkable 99.9% failure-proof rate across its product range. And their reliability has contributed to their **100% customer retention rate**, as N-Labs clients continue to return for more products and services.

## The Future of Pro-Audio in India

Looking ahead, N-Labs is committed to playing a pivotal role in the growth of India's pro-audio industry. Bhatt hopes to see India evolve into a major player in the global audio manufacturing space. He asserts that, by supporting N-Labs, customers are helping to foster the development of the Indian pro-audio ecosystem: "And we want to tell our customers, that whoever is buying our product is helping the India Audio Industry grow. And we are committed to the growth of the entire audio industry in India."

With their focus on delivering value, reducing maintenance costs, and offering unparalleled after-sales service, N-Labs is well on its way to becoming a dominant force in India's pro-audio industry and beyond.

## Conclusion

N-Labs stands out in the competitive audio industry due to its innovative approach, customer-first philosophy, and commitment to delivering high-quality, affordable products. By leveraging decades of experience in the rental business and focusing on in-house manufacturing, N-Labs has successfully bridged the gap between affordability and excellence. With plans to expand globally and dominate India's pro-audio market, N-Labs is undoubtedly a brand to watch in the coming years.



The N-Labs QLA122, a successful product in N-Labs' repertoire

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# CRAFTING THE PERFECT SOUNDSCAPE: VIJAY BENEGAL and MUJEEB DADARKAR Dive into Control Room Acoustics

When two industry stalwarts join forces, the results are bound to resonate—literally and metaphorically. **Vijay Benegal** and **Mujeeb Dadarkar**, co-founders of **Odbble**, acoustics and audio systems consultants and esteemed members of the **IRAA 2024 Jury**, brought their deep expertise to the stage at **PALM Expo 2024** in May. With decades of experience in acoustics and sound design, the duo shared their insights on optimising control room acoustics in an engaging session that left the audience inspired and informed. Known for their work behind the scenes to recognise the industry's top talent at the **IRAA Awards**, Benegal and Dadarkar are no strangers to the intricacies of sound. From the key principles of acoustic treatment to practical advice on designing control rooms, read on to uncover how these visionaries are shaping the future of audio.

## Why Control Room Acoustics Matter

Setting the tone for the session, **Mujeeb Dadarkar** explained the importance of accurate acoustics in control rooms. "You need a control room which gives you repeatable results," he stated. "This means you hear something in that control room, you mix based on it, and that mix should sound correct elsewhere."

He elaborated that achieving this requires addressing three critical factors: the room itself, the speaker system, and their interaction. "You do not always have the best speakers in the world. And even if you do, you might not have the best room. Together, they determine the sound of your control room," he added.

## Understanding Isolation vs Internal Acoustics

A key highlight of the discussion was the distinction between isolation and internal acoustics, often misunderstood as a single entity. **Vijay Benegal** clarified:

"Isolation essentially means we are trying to prevent sounds from outside the room entering the room and sounds from inside the room should not go outside. Internal acoustics, on the other hand, is about the quality of sound within the room—how it bounces off walls, gets absorbed, or remains neutral."

Dadarkar added a humorous analogy to debunk common misconceptions:

"People ask if soundproofing can be 80 per cent effective. That's meaningless. Soundproofing isn't like waterproofing. Imagine someone telling you a window is 99 per cent waterproof. Would you accept that? Soundproofing either works, or it doesn't."

## The Science Behind Ratings: STC and NC

The duo spoke about the metrics used to quantify isolation and internal noise: **STC (Sound Transmission Class)** and **NC (Noise Criterion)**. Dadarkar explained:

"STC measures the difference in sound levels between the outside and inside of a room. For instance, if the outside level is 80 dB and inside it's 50 dB, that's STC 30." He noted that achieving high STC ratings, particularly over 60,



L to R: Mujeeb Dadarkar and Vijay Benegal at the Control Room Acoustics at PALM Expo 2024

is both challenging and expensive.

NC, on the other hand, gauges residual noise within the room, often stemming from equipment like fans or air conditioning systems. Benegal emphasised:

"While STC focuses on external-to-internal isolation, NC includes internal factors like the noise from your AC or other machinery. Achieving an NC rating of less than 20 is excellent, and 20–30 is ideal for a control room."



## Building for Isolation: Techniques and Challenges

Discussing construction methods, Dadarkar introduced the concept of a floating floor. "It's essentially creating a slab isolated from the existing structure. This can be done through civil engineering or carpentry. Civil work is cheaper and more effective, but carpentry might be necessary due to load constraints."

He cautioned against hiring generic contractors, stating, "Commercial contractors, even if skilled at building offices, often lack the precision required for studio construction. Studio construction demands expertise across disciplines, including structural engineering, air conditioning, and electrical design."

Benegal stressed the importance of location in isolation: "A lower floor or a basement is often better for reducing noise, but even basements have challenges, like sound transmitted through the ground from nearby railway stations or heavy machinery."

## The Battle with Air Conditioning

One of the most overlooked aspects of control room design is air conditioning. Benegal highlighted its dual role as both a necessity and a source of noise. "Air conditioning means airflow, and airflow means turbulence, which generates noise. Properly designed duct systems with acoustic silencers are essential," he noted.

He elaborated on the types of systems, "A ducted setup is preferable. Split air conditioners can be adapted for ducting, reducing noise. Window units, and unducted split units while common, often have to be turned off during recording sessions to avoid interference."

## The Imperfect Science of Acoustics

Dadarkar acknowledged that despite advancements, acoustics remains an imperfect science. "We know a lot, but we can't control everything. Even in well-designed rooms, there's always hope that the room turns out neutral. If you're lucky, it's good. Mostly, you end up fixing problems that shouldn't have existed in the first place."

The unpredictability is particularly pronounced in small rooms. "Designing large rooms is easier. In small rooms, it's impossible to fix all problems, especially with the rise of home studios where people expect professional results in compromised spaces," he said.

## Balancing Efficiency with Silence: The Air Conditioning Dilemma

Dadarkar opened the session by addressing a common but significant challenge in control room acoustics – air conditioning. While air conditioning consultants prioritise efficiency, requiring high-velocity airflow to cool spaces quickly, this is at odds with the acoustic requirement for low-noise environments.

"The AC consultants are preoccupied with efficiency, which makes sense because they want to cool the room as quickly as possible with the least energy expenditure," said Dadarkar. "On the other hand, we prioritise low noise, and high-velocity air is our enemy in this regard. The two objectives don't shake hands."

He highlighted the ongoing tug-of-war between acousticians and AC consultants, noting that acousticians often have to insist on systems that prioritise noise control. "At the end of the day, the NC rating will rule. If we need NC 25, the AC system must align with that requirement."

## Sealing the Deal: Doors, Windows, and Sound Locks

Dadarkar shifted focus to architectural features, particularly doors and windows, which are common culprits for noise leakage. He explained the importance of soundproof doors, characterised by stepped profiles and frames on all four sides.

"Regular doors have a gap at the bottom, which is a prime source of air and noise leakage. Soundproof doors eliminate this with proper seals," he noted.

The conversation also touched on the need for sound locks – intermediary spaces between the control room and the external environment – to act as air seals. Where space is limited, installing dual doors can serve as an alternative.

Windows, too, are a critical component. "Sliding windows are a no-go for

studios. Casement windows, with solid or laminated glass, are the preferred choice," Dadarkar emphasised. He further elaborated on the necessity of using panes of different thicknesses to avoid vibrational frequencies passing through. "If both panes are of the same thickness, they will vibrate at the same frequency, allowing sound to travel through easily."

## Geometry and Modes: The Role of Room Design

Turning to room acoustics, Vijay Benegal delved into the importance of room geometry in influencing spectral response and reverberation. He explained how room modes – frequencies amplified due to room dimensions – can cause resonance.

"Parallel walls are particularly troublesome as they support standing waves. If dimensions coincide or align in multiples, resonances overlap, making the room sound terrible," Benegal said. He discussed solutions like avoiding parallel walls or adhering to "golden ratios" for room dimensions to minimise coincidental modes.

The shape and material of the surfaces further affect reverb time (RT60), a key metric in acoustic design. "RT60 measures how long sound energy takes to decay by 60 dB. A cathedral may have a reverb time of 6 seconds, while control rooms typically aim for 0.2 to 0.5 seconds," he explained.

## Tools of the Trade: Absorbers and Their Functions

Benegal and Dadarkar introduced the audience to different acoustic treatments, including broadband and tuned absorbers. Broadband absorbers work across a wide frequency range but are less effective for low frequencies due to their size constraints. "For instance, a one-inch-thick broadband absorber only works for frequencies above 6 kHz. To absorb 100 Hz, you'd need an absorber at least 4 feet thick," Benegal remarked.

Tuned absorbers, though more complex and costly, target specific problematic frequencies. "Helmholtz resonators, membrane absorbers, and tube traps are examples of these. They are designed for precision and occupy less space, making them indispensable in professional setups," Dadarkar added.

## Reverberation and Echo: Striking the Right Balance

The session also addressed the difference between reverb and echo. While echoes are distinct reflections delayed by over 100 milliseconds, reverb is a collection of closely spaced reflections that blend together.

"Musicians often prefer some reverb as a dead room can feel uninspiring. However, in a control room, you need minimal reverb to ensure accurate monitoring of the studio's acoustics," Benegal explained. He noted the current standards, suggesting reverb times of 1 to 1.2 seconds for recording studios and 0.2 to 0.5 seconds for control rooms.

## Sound Science Meets Art

Dadarkar and Benegal concluded the session by emphasising the interplay of science and artistry in acoustic design. While technical specifications and measurements provide the foundation, the ultimate goal is to create spaces that enhance creativity and productivity.

"Acoustics is a blend of science and intuition. You need the numbers, but you also need to understand the context – who's using the space and how," said Dadarkar.

## The Science of Absorption: Materials and Their Role

"Absorptive materials play a pivotal role in controlling sound in a room," explained Benegal. He elaborated on the concept of the absorption coefficient, a parameter ranging from zero to one that indicates how much sound a material absorbs.

"For instance, a large open window has an absorption coefficient of one, as all the sound escapes and doesn't reflect back. But, of course, you can't rely on open windows because neighbours won't appreciate the noise!" he quipped, adding a touch of humour to the technical discussion.

Benegal clarified that different materials perform differently across frequency ranges:

"Something that absorbs well at high frequencies may not work as effectively at lower frequencies. This variability is critical, which is why we rely on

*(Continued on page 69)*

# BEHIND THE CONSOLE:

## DR. PRAMOD CHANDORKAR on the Art of FOH Mixing



At the *PALM Expo Show* held in May of 2024, sound engineer **Dr. Pramod Chandorkar** captivated the audience with his session on the complexities of front-of-house (FOH) mixing. Dr. Pramod Chandorkar serves as the Director of *SoundIdeaz Academy* and Program Director at *Universal AI University*, where he leads initiatives in audio education and innovation. His insights shed light on a role many aspire to, but few fully understand, exploring everything from the technical intricacies to the personal nuances that make FOH mixing an art as much as a science. Our team at *PALM Expo Magazine* captured the highlights of this session brought to you by the stalwart of sound engineering.

### More Than Meets the Ear

While many think FOH mixing is primarily about adjusting levels and EQs, Chandorkar explained that the scope extends far beyond. "There are many unsaid things that come under the jurisdiction of the FOH engineer," he noted. Not only is the engineer responsible for sound quality but also for interpreting and meeting the expectations of artists, audiences, and event managers. He added, "Expectations keep changing with the situation, with the artist you're working with, and the event management company."

The FOH engineer's influence covers an array of often-unrecognised elements, from anticipating challenges posed by a venue's acoustics to understanding audience demographics and adapting the sound experience accordingly. Chandorkar's reflection here illuminated the often-overlooked reality that FOH mixing is as much about audience psychology as it is about audio engineering.

### Feedback and the Art of Interpretation

A fundamental skill for any FOH engineer is interpreting feedback, both from the artist and the audience. Chandorkar eloquently described this as "a mixture of science and art." He explained, "The art part lies here. It's not the science. The art part is to understand what feedback means and how to convert it into action so that it does not happen again." A truly skilled FOH engineer knows how to dissect feedback, understanding not only what went wrong but also how to prevent issues in the future.

One of the hallmarks of a job well done, according to Chandorkar, is remaining invisible. "If no one is looking at you, it means your job is great," he said, highlighting that FOH engineers only attract attention when something goes wrong. This invisible presence is a hallmark of the FOH engineer's exper-

tise, underscoring their role as a silent yet critical player in delivering seamless performances.

### Venue, Acoustics, and Audience

The venue's acoustics can make or break a performance, a factor that is often outside the engineer's control. Chandorkar shared that in India, acoustics are rarely a priority in venue selection, posing unique challenges for FOH engineers. He explained, "Most of the time, the decision on venues is not taken keeping in mind the sound aspect." While open-air venues are preferable because they provide natural acoustics, enclosed spaces often introduce complications, including echoes and feedback issues.

"When you have a mix of people, from young to old, satisfying everyone's listening experience becomes a nearly impossible feat," Chandorkar admitted. Yet, he highlighted that understanding the audience is essential to crafting the best possible experience, even when the audience may struggle to articulate their feedback. "It's a big statement for you to analyse and understand what is not right," he said, a testament to the challenge of interpreting vague responses and creating an optimal auditory experience.

### Building Trust with Artists and Bands

For Chandorkar, one of the most crucial aspects of FOH mixing is developing an understanding of the artist's vision. His long-standing collaboration with **Sonu Nigam**, which spans over 18 years, has taught him that FOH mixing is deeply personal and relational. "It's everything to do with how well I know him, how well I understand him, and how much he trusts me," he explained. This trust isn't based on technical proficiency alone but on a nuanced understanding of the artist's musical preferences, subtleties, and intentions.



# GET Show

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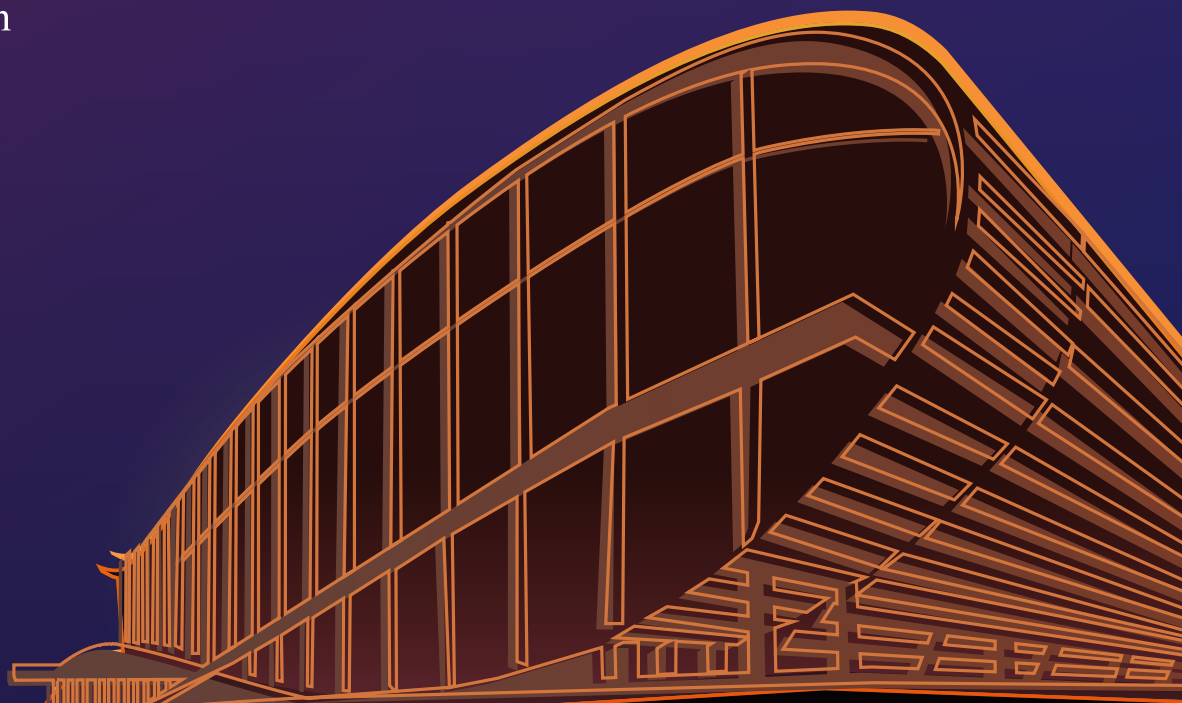
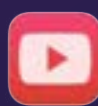
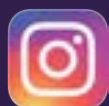
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The FOH engineer must also build relationships with each band member. "They are delivering an output, a collective output," he noted, stressing that each musician's role and preferences influence the final mix. This is particularly challenging in live settings, where there is often limited time for feedback. Chandorkar emphasized that these relationships and understandings are established offstage, long before showtime. "That trust is the only thing that helps you do a good job," he added, underscoring that technical equipment only forms part of the equation.

## Mixing New Arrangements: A Balancing Act

Mixing live covers and new arrangements presents unique challenges, especially when dealing with unfamiliar genres. Covers, Chandorkar noted, provide a reference, making them slightly easier to mix. However, new arrangements demand an intricate understanding of the music and often come with no guide. He stressed that attending rehearsals and practicing active listening are critical to mastering new arrangements. "This is all groundwork required before you get onto the stage," he said.

Understanding musical genres is also essential, according to Chandorkar. FOH engineers must become accustomed to the unique balance of each genre, from rock to indie to Bollywood. "If I were suddenly asked to mix a rock band, would I do a good job? I'm not sure," he admitted, stressing that engineers must be honest with themselves about their expertise and limitations.

Chandorkar's session illuminated the lifelong learning process that FOH engineers undertake. Every performance offers a new opportunity to refine techniques, deepen connections with artists, and enhance one's understanding of sound. His insights served as a reminder that FOH mixing goes beyond the console. It's an art, a science, and a deeply collaborative process that lies at the heart of every live performance.

## Testing, Testing: Rehearsal as a Foundation

Chandorkar began by underscoring the importance of preparation: "Rehearsal is a must, and you should not be sitting on the console. You should be listening. Let the artist continue performing, stand where the audience stands and listen." Rather than focusing on equipment settings, Chandorkar urged engineers to be attentive, allowing others to handle the mix during rehearsals while they focused on auditory details and visual cues. He explained how noting each song's arrangement, especially if it's unfamiliar, could significantly improve the final performance, saying, "Mental picture of the arrangement is very important." The rehearsal, to him, is about developing an intuitive understanding of the music, which removes the need for extensive notes—a benefit of being a musician himself, he shared.

An integral part of Chandorkar's approach is developing effective communication with musicians. "It depends on how you say it, not just what you say," he remarked, illustrating that an engineer's role includes sensitive communication with the band to ensure a clean sound. Chandorkar explained the importance of timing and respect when offering feedback: "During rehearsals, there is a tea break and a smoke break. That's the time you talk. You do not interrupt the artist while he is performing the song." He advised engineers to offer suggestions in a way that would be well-received by musicians rather than asserting authority, which could foster resentment.

## Technical Challenges and Limitations in Live Sound

On the technical side, Chandorkar pointed out that achieving an excellent mix involves understanding both the limitations of the venue and the equipment. "A good system engineer is the most important resource for a mix engineer," he stated, stressing the need for engineers to collaborate with system specialists who understand acoustics and the specifics of the venue. Chandorkar shared his insight into common constraints in India's live sound setups, where budget often dictates equipment choices. "In Indian productions, most of the time we face budget issues, this is the difference between Indian and International productions. A lot of times, a system is not defined by what the venue requires. It is defined by what budget is available," he said. The availability of equipment might not align with the venue's requirements, a limitation he believes could affect overall sound quality.

## The Psychology of a Perfect Mix

Beyond technical knowledge, Chandorkar highlighted the psychological aspect of live sound. "One is to mix. And second is to sell your mix. If you cannot

sell, it has no value, no matter how hard you worked on it," he explained, stressing the importance of the audience's perception. A successful engineer, he said, must anticipate how the audience, comprising fans, artists' family members, and friends, might react to the mix. Given the subjective nature of sound quality, the best mix might vary based on who is judging. Chandorkar illustrated this challenge with a scenario: "There is a point in the concert where the artist has designed it in such a way that the audience should be excited about this part. They didn't get excited that day. Whose fault is it?" Such variables, he said, make it difficult to define the "best" mix, especially in live settings. "Even the best is logarithmic. It's always compared to something. Compared to what is the biggest question and it, I don't have the answer," he quips.

## Live Versus Recorded Sound

Chandorkar warned against judging live sound quality solely by recordings, noting that a live mix is crafted for the venue and moment, not for post-show playback. "It's unfair to judge the quality of the mix by listening to a recording of the mix," he asserted, since factors like venue acoustics and live atmosphere cannot be captured in recordings. Reflecting on his own experiences, he shared, "I have so many recordings of my shows... And when I listen to them, I said, Who did this? Why did this mistake happen?" The real magic of a live show, he argued, is in the experience shared between the artist, the engineer, and the audience in real-time.

## Navigating Audience Expectations and Social Media Influence

Finally, Chandorkar addressed the new reality of instant feedback through social media, where videos and reviews are posted within moments of the concert's end. This immediate scrutiny has created new pressures for engineers. "Today we have, with today's technology... every musician is wanting to learn mixing. He's doing audio," he observed, adding that musicians and fans now have more awareness and expectations from sound engineering. Chandorkar emphasized the importance of staying adaptable and resilient in the face of such pressures, reminding engineers that "there's no fixed element" to expectations in live sound.

## Bridging Technical Mastery and Human Connection

Ultimately, Chandorkar's session was a testament to the balance needed between technical mastery and human connection in live sound. He reinforced that the tools—consoles, EQs, compressors—are there to assist but not define the art of mixing. His experience-driven wisdom shines through in his advice for young engineers: rehearse meticulously, communicate thoughtfully, and remember that "as long as the source is clean, your mix is going to sound clean." The best mix is ultimately one that not only pleases the ear but resonates with the hearts of the audience.

## The Limitations of Plug-and-Play in System Engineering

According to Chandorkar, a significant misconception in Indian system engineering is that many believe simply buying and installing high-end systems will suffice. "Unfortunately, what happens here, I'll tell you. System engineering in our country is just plug-and-play, even when you go to buy the product, the seller will tell you to just plug it in and play" he explained, noting that this approach underestimates the complexity of tuning a system to suit a venue's acoustics. Chandorkar shared a story of a high-end processor with locked settings, sold under the guise of simplicity. "This is the problem we face, and this is because of lack of education in this field and lack of understanding about mixing," he lamented, highlighting the limitations of relying solely on preset configurations. This approach often results in subpar audio quality, as engineers lack the autonomy to adjust settings optimally.

Diving into the use of digital measurement tools like **SmartLive**, Chandorkar emphasised that these are only aids and not solutions in themselves. "SmartLive is just a tool. Just putting the SmartLive and understanding what data it has given and converting it into action are very different things," he pointed out. For Chandorkar, true system engineering goes beyond merely gathering data; it involves interpreting that data to make precise adjustments to improve audio clarity. He argued that relying blindly on software outputs without understanding the audio physics behind them leads to missed opportunities for a better sound experience.



In live sound, the system engineer plays a pivotal role, bridging the technical aspects of the setup with the mix engineer's creative objectives. Chandorkar stressed that the best mix is only possible if the system engineer can ensure a clean and accurate sound from the speakers. "Unless and until I hear the right audio out of those speakers, how am I going to make the decisions?" he asked rhetorically, elaborating that technical elements like EQ, gain, and compression are decisions based on real-time feedback. Chandorkar advocates for collaborative efforts between system engineers and mix engineers to achieve the best sound balance for live events.

## Studio Mix Experience

Chandorkar believes that a solid grounding in studio mixing provides a valuable foundation for engineers working in live sound. In a studio, where acoustics are controlled and predictable, an engineer learns to make careful decisions about EQ and compression, decisions that they can carry into live venues. "In a studio, you are sure that what you're listening in that treated room is good. So the speakers are right," Chandorkar noted. This experience allows engineers to develop a well-trained ear for achieving clean sound quality, even in less-than-ideal live environments.

One of Chandorkar's key takeaways was the importance of controlling low frequencies and minimising stage bleed, factors that can significantly impact sound clarity. "If low frequency is not clean, you'll always keep on struggling with this," he explained, urging engineers to avoid excessive low-end output on stage, which can muddy the sound. He recommended cardioid subwoofers and selective use of stage monitoring to keep bass frequencies in check. Stage bleed, caused by open microphones capturing unwanted sounds,

can also be managed by careful microphone placement and minimal stage volume, he advised.

## Constant Evolution Through Experience

In closing, Chandorkar encouraged engineers to embrace continuous learning and meticulous preparation. From building detailed show files to practicing with multi-track recordings in studio settings, he emphasised the importance of preparation to handle the unique demands of live sound. "The best strategy is to tie the loose ends. What are the loose ends? Build your show file. The technical things which you can do in advance, do it in advance. So, you can focus more on the things which really matter at the venue," he advised.

Pramod Chandorkar's session was a masterclass in live sound engineering, shedding light on both the technical and psychological aspects that make for an unforgettable concert experience. His insights underscored the importance of expertise, adaptability, and the often-overlooked role of the system engineer in shaping the audience's experience. For aspiring and experienced engineers alike, his advice serves as a reminder that behind every successful live performance is a team committed to perfecting the sound. Packed with practical examples, industry insights, and a wealth of knowledge, this session left the audience inspired and eager to elevate their craft!

To view the full conference session, visit the link – <https://www.youtube.com/watch?v=3ohKf3ZWfLQ>  
Head to the **PALM Expo Official YouTube channel** for all conference videos on industry pathbreakers!

## CRAFTING THE PERFECT SOUNDSCAPE...

(Continued from page 65)

charts showing absorption coefficients across different octave bands. The closer the coefficient is to one, the better the material absorbs sound."

### Diffusers and Diffraction: Scattering Sound

Switching focus to diffusion, Dadarkar explained the role of diffusers in scattering sound waves. "Diffusers prevent sound from reflecting specularly by bouncing waves in random directions," he said, displaying visuals of various diffuser designs. "Their purpose is to scatter sound and avoid direct reflections that could muddy the mix."

Dadarkar also touched upon diffraction, the phenomenon of sound waves bending around obstacles. "Diffraction can cause problems, especially with monitor speakers," he noted. "At the edges of speakers, secondary waves are created, leading to cancellations and blurring. Rounded edges on speaker designs help mitigate this issue."

### Monitors and Mounting: Practical Guidelines

The discussion moved to monitor placement, with Dadarkar offering valuable insights: "Main monitors should be placed as far back as possible, while near-fields need to be closer to the desk to minimise reflections from walls."

He introduced the concept of soffit mounting, a technique where speakers are embedded into a massive, flush surface within the control room. "Proper soffit mounting ensures the speaker surface is flush with the wall, reducing diffraction and enhancing efficiency," Dadarkar said. However, he cautioned that such setups are expensive and require precise room size calculations to avoid issues with room modes.

## Simulating Spaces: Software Solutions for Design and Analysis

Benegal highlighted the role of simulation software in designing acoustically sound spaces. "Tools like Ease by **AFMG**, **Catt Acoustics**, and **Odeon** are invaluable for visualising sound distribution in a room before it's built," he said. However, he added a caveat: "These programs are more effective for large spaces than smaller studios, and they come with a hefty price tag."

Once a room is constructed, real-time analysis tools take over to assess its acoustic properties. "Modern analysers, such as **Brüel & Kjær**, provide precise measurements," Dadarkar explained. He demonstrated how these tools generate detailed reports to guide adjustments in speaker calibration and room tuning.

## Electronic Corrections: Hardware and Software Approaches

Room tuning isn't limited to acoustic treatments. Dadarkar discussed electronic correction methods using hardware like crossovers, speaker management systems, and programmable EQs. "**Genelec**, for instance, offers in-built DSP with calibration software like **GLM**," he said. "Alternatively, third-party software like **Sonarworks** provides real-time calibration to correct room responses."

He illustrated how these tools transform frequency responses, turning problematic room acoustics into optimised soundscapes. "The goal is to achieve a balanced and accurate listening environment, whether through acoustic treatments or electronic correction," Dadarkar concluded.

## Final Takeaways: Merging Science with Practice

The session reinforced the importance of merging scientific principles with practical applications in control room acoustics. From selecting the right materials to leveraging cutting-edge software, Dadarkar and Benegal provided attendees with a comprehensive toolkit to tackle acoustic challenges.

As Vijay Benegal aptly summarised, "Good acoustics don't happen by chance; they are the result of meticulous planning, precise calculations, and a deep understanding of sound behaviour."

The session provided attendees with not just theoretical knowledge but practical insights into tackling real-world challenges in control room acoustics. With their expertise, Mujeeb Dadarkar and Vijay Benegal underscored why careful attention to detail can make all the difference in creating spaces that sound as good as they look.

PALM Expo 2024 once again proved to be an unmissable event for audio professionals, offering valuable lessons for anyone striving to create the perfect sound space.

To view the full conference session, visit the link - <https://www.youtube.com/watch?v=CsYGwQdr9ts>  
Head to the **PALM Expo Official YouTube channel** for more conference videos on industry pathbreakers!

### KG MOVIE ELEVATES EASTERN INDIA'S EVENT SOUNDSCAPE WITH MAJOR AUDIO EQUIPMENT INVESTMENTS

**KG Movie**, one of the leading event equipment rental service providers based in Kolkata, recently expanded its extensive live sound offerings with major acquisitions in professional audio equipment. These new additions include state-of-the-art systems from **d&b Audiotechnik**, **DAS Audio**, and **DiGiCo**, strengthening the company's ability to serve high-profile events, concerts, and festivals in Eastern India.

**Manoj Singh**, Director and CEO of KG Movie, shared insights into the motivation behind the new purchases, stating, "For over 20 years, we at KG Movie have strived to make every event

unforgettable by delivering unique experiences. Our clients rely on us for exceptional sound quality and performance, and our recent acquisitions from brands like d&b Audiotechnik, DiGiCo, and DAS Audio allow us to exceed expectations with ease."

Among the notable additions is the d&b Audiotechnik **KSL Series line array system**. KG Movie acquired 32 KSL line array modules and 16 **SL-GSUB cardioid subwoofers**, a move facilitated by Ansata, the official distributor for d&b Audiotechnik in India. Singh elaborated, "Transitioning to the KSL series felt natural for us. We've used d&b Audiotechnik systems for nearly a decade, and this upgrade supports our exponential

growth in the concert and festival space. The KSL's constant directivity pattern delivers rich and immersive soundscapes with minimal sound bleed, keeping the stage environment quiet – a crucial feature when working with renowned artists." Notably, the purchase positions KG Movie as the only company in Eastern India with an inventory exceeding 100 d&b Audiotechnik loudspeaker units.

KG Movie also expanded its lineup with **DAS Audio's EVENT series**, adding 24 **EVENT 212A powered 3-way line array modules** and 12 **EVENT 218A powered dual 18" bass reflex subwoofers**, facilitated by **Stagemix Technologies LLP**. Singh highlighted the value of the DAS system's self-am-

plified nature, noting, "The EVENT series offers exceptional sound and efficiency, which is critical for private events with limited setup time. The quick setup and efficient alignment allow us to maximize rehearsal and sound check time, ensuring consistent audio quality."

Complementing the loudspeaker additions, KG Movie acquired the **DiGiCo Quantum 338 digital mixing console**, including the **SD Rack**, through Delhi-based **Hi-Tech AVL**, the official DiGiCo distributor. Singh praised the console's capabilities: "The **Quantum 338's** advanced processing and user-friendly interface allow our engineers to deliver flawless mixes. With features like True Solo, Spice Rack, and network support via Dante-enabled DMI Cards, the console empowers us to handle complex setups for a range of events."

Singh concluded, "Our recent investments in d&b Audiotechnik, DAS Audio, and DiGiCo underscore our commitment to elevating live event experiences across Kolkata and beyond. These acquisitions reflect our dedication to offering world-class sound solutions, helping our clients and their guests experience events like never before."



Manoj Singh, Director of KG Movie, and the KG Movie team, along with their newly acquired gear

### QSC, LLC TO BE ACQUIRED BY ACUITY BRANDS

**QSC, LLC**, one of the market leaders in the design, engineering, and manufacturing, of audio, video and control solutions that are designed to create impactful experiences, announced that they have reached a definitive agreement to be acquired by **Acuity Brands, Inc** ("Acuity").

"Bringing QSC together with Acuity underscores the critical role AV technology plays in live, hybrid, and virtual experiences," said **Joe Pham**, Chairman and Chief Executive Officer

of QSC. "Our two organizations are aligned on a long-term mission and core values that drive our mutual passion for innovation, customer satisfaction, and employee well-being."

QSC will become part of Acuity's Intelligent Spaces Group to execute the joint vision of making spaces smarter, safer, and greener with disruptive technologies that leverage data interoperability.

"From our roots in pro audio to our Q-SYS platform solutions, our talented

teams are well-positioned to bring our mission to life for our customers, ecosystem partners, and our system integrators who serve them," said **Jatan Shah**, President of QSC. "With Acuity's Intelligent Spaces Group, our rich landscape of data will deliver dynamic and engaging experiences that captivate and inspire."

**Joe Pham**, Chairman and Chief Executive Officer of QSC





COMCON CONCLUDES A LANDMARK YEAR WITH SUCCESSFUL PARTICIPATION AT INFOCOMM AND BROADCAST INDIA 2024

Comcon, one of the most prominent suppliers of Audio, Video, Networking, and Connectivity solutions, has successfully wrapped up its participation in two key industry events this year: **InfoComm 2024** and **Broadcast India 2024**. These events focused on the Pro AV and Broadcast markets, respectively, marking significant milestones for the company's

growth and innovation. At InfoComm 2024, Comcon debuted its installed **AV system solutions** tailored to sectors such as Corporate, Education, Hospitality, and Government. The company showcased a range of connectivity solutions that address the rising demand for high-performance AV system integration.

Reflecting on their participation, **Gaurav Aggarwal**, Director of Comcon Technologies Ltd., shared: "Our debut at InfoComm 2024 was a proud moment for Comcon. It allowed us to showcase our wide range of solutions that focus on connectivity between installed AV systems, meeting the critical needs of professionals in the AV industry. The

feedback from industry professionals was overwhelmingly positive, and we are excited about the future opportunities in this growing market." Shortly after InfoComm, Comcon participated in the Broadcast India event, this time focusing on broadcasting solutions for the Radio, TV, and OTT sectors. The company displayed a variety of products, including connectors, cables, playout software, and mixing desks. A notable highlight was the introduction of new partnerships with Multidyne and BenQ, along with the unveiling of a state-of-the-art colour correction monitor specifically designed for content artists. Mr. Aggarwal remarked: "With our new partners and solutions, we are making big strides into fiber optic signal distribution and management, and the BI2024 show was a great opportunity for us to showcase both our solutions as well as our commitment. Our participation reaffirmed our resolve to serve customers in the broadcast and infotainment sectors, and the rapidly evolving digital media platforms." With both events behind them, 2024 has been a pivotal year for Comcon, providing valuable opportunities to expand business and foster new collaborations in the rapidly growing Pro AV and Broadcast markets. The company is looking forward to the developments and partnerships that lie ahead.



The Comcon and Neutrik Team at InfoComm India 2024

To Book Your AD Space in PALM Expo Magazine, contact:  
Smita Rai - [smita.rai@hyve.group](mailto:smita.rai@hyve.group) | Vartika Singh - [vartika.singh@hyve.group](mailto:vartika.singh@hyve.group)



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## PINK NOISE PROFESSIONALS WELCOMES P.A. DEEPAK AS APOGEE ARTIST

Pink Noise Professionals has proudly announced its partnership with multi Grammy winning mixing engineer **Pallikonda Adrushta Deepak** also known as **P.A. Deepak**, as an **Apogee Artist** in India. This collaboration brings together Deepak's renowned expertise in audio engineering and Apogee's commitment to high-fidelity audio solutions, marking a significant development in India's sound production landscape.

Deepak, a multifaceted musician and audio engineer, embarked on his journey as a guitarist before transitioning to recording and mixing at **St. Luke's Recording Studio (Ash-irvad Luke)** in Vizag. His diverse portfolio includes radio spots, local bands, Carnatic music, and film songs, showcasing his technical expertise and artistic flair.

A pivotal moment in Deepak's life occurred in 2004 when he connected with renowned flautist **Naveen Kumar** from Visakhapatnam. Naveen Kumar, affectionately known as Naveen anna, offered valuable advice that altered Deepak's journey. He encouraged Deepak to join forces with acclaimed esteemed music arranger & composer **Ranjit Barot**.

This decision proved to be a turning point in Deepak's career, opening doors to new opportunities and experiences. Under Ranjit Barot's guidance in Mumbai, Deepak developed a nuanced understanding of analogue and digital audio, as well as an appreciation for top-tier audio equipment.

Deepak's illustrious career boasts extensive work with Oscar-winning composer **A.R. Rahman**, yielding some of the most memorable and critically acclaimed soundtracks in Indian cinema.

Reflecting on his formative projects, Deepak credits his early work at Nirvana Studio on the soundtracks of **Gurind-**

**er Chadha's** *Bride & Prejudice*, the Bollywood blockbuster *Main Hoon Na (BGM Score)*, and Oscar winner **M.M. Keeravani's** *Paheli* as pivotal milestones in his career. These projects marked the beginning of his collaborations with industry-leading composers, laying the groundwork for his future success.

Deepak's dedication to his craft, combined with his ability to learn from each experience, has been instrumental in shaping his career. His work has earned him numerous accolades, including a Grammy Award. A notable highlight is his first Grammy Award win in 2010 for his outstanding work on the *Slumdog Millionaire* soundtrack, which took home the award for Best Compilation Soundtrack for Visual Media.



**Vikram Yadav, Pink Noise Professionals and P.A. Deepak, Mixing Engineer & Record Producer**

"Winning the Grammy was a significant milestone, but it also brought a new level of responsibility," Deepak reflected, underscoring the impact of this achievement on his career.

Deepak's career has continued to soar since his initial Grammy win for *Slumdog Millionaire*. He has collaborated with **Ricky Kej** on several projects, including the Grammy-winning albums *Winds of Samsara* and *Divine Tides*. The latter received the Best New Age Album award at the 64th Grammy Awards, with Deepak also receiving a Grammy Winner's

Certificate for his participation in the immersive album.

Their successful partnership extends to the newly Grammy-nominated album, *Break of Dawn*, with the winner to be announced at the Annual Grammy Awards on February 2, 2025. Deepak's work as a Surround Mix Engineer on *Winds of Samsara* earned him a Certificate of Honour, recognizing his contribution to the album's Grammy win for Best New Age Album at the 57th Annual Grammy Awards.

Deepak has also received multiple Grammy participation certificates for his roles as an engineer, musician, and mixing and mastering engineer. In 2017, The Recording Academy honoured Deepak's 15-year membership, acknowledging his tireless

that allows me to execute my creative vision effectively," he stated.

Now, as an Apogee Artist in India, Deepak will take an active role in promoting these technologies. He plans to participate in workshops, special showcases, and immersive audio projects that highlight Apogee's capabilities, aiming to share his expertise with India's audio engineering community.

Throughout his career, Deepak has received numerous awards that underscore his impact in audio engineering:

- **2022 64th Annual Grammy Award:** Best New Age Album: *Divine Tides*
- **2021 Smule Mirchi Awards** - Best Sound Mixing of the Decade for *Kadal* (Tami)
- **2012 Chevrolet Star GiMA Awards** – Best Engineer
- **2011 Vijay Music Awards** – Best Sound Mixing
- **2010 52nd Annual Grammy Awards** – Best Compilation for Visual Media: *Slumdog Millionaire*
- **2009 Airtel Mirchi Music Awards** – Best Song Mixing & Engineering for *Delhi-6*
- **2005 AV MAX Award** – Best Recording Engineer for *Paheli*

These accolades reflect Deepak's commitment to pushing the boundaries of sound engineering and his influence on India's music industry.

Through this partnership, Pink Noise Professionals and Apogee hope to elevate the standards of music production in India. Deepak's career exemplifies a blend of artistic vision and technical skill, inspiring young engineers and artists alike.

By collaborating with Deepak, Pink Noise Professionals and Apogee reinforce their dedication to supporting India's music industry and showcasing the potential of advanced audio solutions in shaping the country's sonic landscape.



The sound system delivered by Pink Noise is engineered to perfection for intimate conversations, live performances, and those electric DJ nights

# ENHANCING SOUND EXPERIENCES: Pink Noise's Installation at Lucknow Hazratganj SOCIAL

*Pink Noise Professionals has successfully completed the audio installation for **Lucknow Hazratganj SOCIAL**, the first venue of the SOCIAL brand in the city. This project aimed to create a versatile space capable of accommodating a range of musical experiences, from lively DJ parties to traditional Sufi performances in the city of Nawabs.*

## Client Requirements and Challenges

The primary requirement from the client was to develop an audio solution that could effectively support varied musical styles while ensuring an engaging atmosphere for guests. The venue, located in Hazratganj, posed specific challenges due to its older architecture. Installation teams needed to proceed with caution during drilling and suspension work, particularly given the interior design features such as real carpets on the curved false ceilings, which were intended to reflect the rich heritage of Lucknow. The design called for a careful balance, ensuring that the audio equipment did not obscure these aesthetic elements while still delivering full sound coverage throughout the venue.

## Installation Timeline

The installation officially began in March, but it faced numerous delays due





The Workpro Athos 8 and Athos 10 speakers on the open-air terrace at Lucknow SOCIAL enhancing live performances by sufi artists

to clearance issues. The project was executed in two phases: the first phase focused on laying cables and installing suspension brackets, while the second phase encompassed the installation of speakers, programming, and system commissioning.

### Equipment Selection

The audio system incorporated **EAW RS153 speakers**, **EAW RS118 subwoofers**, and **EAW MKC80 speakers**. Due to the venue's ceiling height of only 10.5 feet, the team prioritized speakers with a compact footprint yet powerful performance. EAW is well regarded for its sound quality in the professional audio sector, making these products suitable choices. The RS153 and RS118 speakers were strategically placed to cover the main dance floor area, while the MKC80 speakers provided effective filler sound, noted for their excellent power and frequency response relative to their size. The venue consists of two floors, the lower floor is the main venue where all the DJ parties and live music happen. The floor above has been reserved for curating live music and to mesmerize patrons with Sufi music and qawwali as the main spice of the evening.

### The Role of Prince Philip

**Prince Philip** from **Munro Acoustics**, one of the industry leading acoustic consultancies, played a vital role throughout the installation process, bringing a wealth of experience in technical audio solutions for almost a decade. His involvement included speaker selection, positioning, and final calibration to ensure optimal sound clarity. He stated, "**Axys Integrated Solutions** and **Munro Acoustics** have collaborated with **Pink Noise Professionals** for almost all SOCIAL projects, providing expert electroacoustic consultancy and system design. At Lucknow Hazratganj SOCIAL, we specified EAW RS153 speakers and RS118 subwoofers to deliver powerful sound across the space, while the MKC series served as fillers, offering excellent size to power ratio and full bandwidth coverage for seamless audio quality throughout the venue."

"At Lucknow Hazratganj SOCIAL, we specified EAW RS153 speakers and RS118 subwoofers to deliver powerful sound across the space, while the MKC series served as fillers, offering excellent size to power ratio and full bandwidth coverage for seamless audio quality throughout the venue."

**PRINCE PHILIP**  
MUNRO ACOUSTICS



The EAW series installed by Pink Noise offers unparalleled audio precision at the Lucknow SOCIAL

### System Functionality and Adjustments

Designed to accommodate both live performances and DJ sets, the system at Lucknow Hazratganj SOCIAL is highly adaptable. The venue features two floors, with the lower level dedicated to main events and the rooftop designed to host live music that aligns with the cultural vibe of Lucknow. The audio installation includes **Yamaha** live mixers and **Amate Audio's LMS608 digital signal processors**, allowing venue staff to easily switch between different audio configurations. This capability enables staff to quickly prepare for either a DJ performance or live music, accommodating the venue's diverse entertainment offerings.

### Feedback and Future Plans

While detailed feedback from Lucknow Hazratganj SOCIAL regarding the audio system's performance is still awaited, the project represents a significant enhancement to the venue's ambiance and guest experience. The SOCIAL brand continues to innovate, and there are expectations for future installations and upgrades in similar venues across India, each presenting new challenges and opportunities.

### Installation Highlights

**EAW RS153 Speakers:** Delivering crystal clear, dynamic audio.

**EAW RS118 Subwoofers:** Providing powerful, immersive bass for a fuller sound experience.

**EAW MKC80 Speakers:** Ensuring seamless, even sound coverage as fillers.

**WORKPRO Athos 10 and Athos 8 Speakers:** Enhancing the open terrace ambiance to complement the outdoor setting.

The installation at Lucknow Hazratganj SOCIAL exemplifies the blend of technology and design needed to meet the demands of a modern venue. With an advanced audio system that caters to a variety of musical styles and events, the venue is poised to deliver an engaging experience for its patrons, fostering a vibrant cultural scene in the heart of Lucknow.



# 11Q

## “CEO INSIGHTS: 11 QUESTIONS WITH THE BEST AND TOP MINDS IN **PRO AUDIO & LIGHTING**”

*HEAR FROM THE LEADERS SHAPING THE INDUSTRY'S FUTURE*



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Pietschmann**

CEO, Adam Hall Group



**Andreas  
Sennheiser**

CEO, Sennheiser



**Christine  
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**Greg Beebe**

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Professional Audio, Sennheiser



**Marcus Graser**

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CEO, Genelec

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# Leveraging Scale with Power: A Look at the Latest Line Arrays Revolutionising Sound Reinforcement

In the world of sound reinforcement, line arrays have become a game-changer. They have revolutionised the way live sound is delivered, providing consistent, high-quality audio from the front of the venue to the back. This issue being *PALM Expo Magazine's Sound Reinforcement Special*, we dive into the latest innovations from the past year in line array systems, exploring the top models and their key features. From adaptive sound dispersion to cutting-edge digital signal processing, line arrays offer sound professionals the tools they need to create the perfect sonic experience. Read on to learn which line arrays are shaping the industry!

### EAW Anya


EAW Anya is a complete, self-contained, high-power sound reinforcement system that adapts all performance parameters electronically, allowing it to be used in virtually any application. Columns of Anya modules hang straight, without any vertical splay, and Resolution 2 software adapts total system performance to produce asymmetrical output that delivers coherent, full-frequency range response across the entire coverage area as defined by the user.

**Main Features include:**

- Vastly simplified setup process as compared to typical large-format arrays; uses no vertical splay angles to achieve desired coverage
- On-board diagnostics and Adaptive Healing continuously monitor and correct performance in real time
- High-power, full bandwidth; scalable to all performance types and venue sizes

**Technical Specifications:**

- Frequency Response: 35 Hz – 18 kHz
- Operating Mode: Amplifier Channels 2x LF; 6x MF; 14x HF
- Max SPL: 152 dB
- Weight: 129.3 kg per module



### dB Technologies IS 210L Line Array


IS210L is the first IS line array dedicated to installations. Designed with a symmetrical configuration with 2 10" woofers and a 2.4" driver on a waveguide, it is the first complete passive system bringing the capabilities of a high-quality line array to large environments such as arenas, performing arts center, houses of worship, multifunctional venues, clubs.

**Main features include:**

- High professional acoustic performance
- Premium components with touring inspiration
- Maximum configurability in stacking or hanging
- Maximum resistance to weather agents

**Technical Specifications:**

- Frequency Range: 65 Hz - 17,500 Hz
- Max SPL: 133 dB
- Dimensions:
  - Width: 675 mm (26.57 in)
  - Height: 310 mm (12.2 in)
  - Depth: 400 mm (15.75 in)
- Weight: 29.2 Kg
- HF: 1x 1.4" (exit), 2.4" v.c.
- LF: 2x 10", 2.5" v.c.
- Dispersion: 90x15° [H x V]
- X-Over Frequency: 900 Hz (internal X-Over)



### Amate Audio Xcellence XA211 Line Array

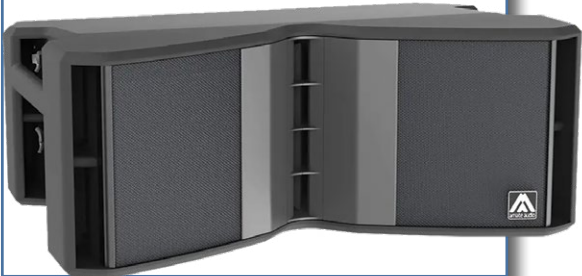
The latest advanced design and technology from the Xcellence series is a relentless pursuit of sonic excellence, leading us to optimize every component and material. At the core of the XA211, audio innovation ensures unparalleled clarity, accuracy and fidelity, allowing to shape and sculpt the audio to utmost precision.

**Main Features include:**

- Integrated power & control presets
- Exclusive high-performance waveguide
- Light neodymium components
- 250 V Overvoltage protection

**Technical Specifications:**

- Amplifier program power: 2500 W (LF) + 500 W (HF) – Class D Bi-amplified
- Analog Input: +8 dBu nominal, Max +20 dBu
- Frequency response (-10 dB): 65 Hz – 19 kHz
- LF-MF drivers: 2x 10" neodymium woofers (2.5" voice coil)
- HF driver: 1x 3" titanium diaphragm, neodymium magnet compression driver
- Directivity: 95° (H) x 10° (V)
- SPL (1m): 136 dB (musical program), 139 dB peak
- Dimensions: 294 x 740 x 566 mm
- Weight: 37.4 kg
- Power supply: Universal Switch Mode (85-265 V, 45-65 Hz)



### Adamson VGt Line Array


VGt is a peak performance large-format line array loudspeaker and the first member in the Vergence Group. Including 8 transducers, amplification, a networked DSP endpoint and Autolock rigging in a lightweight and compact package marks a quantum leap in loudspeaker evolution.

**Main Features Include:**

- Patent-pending M140 MF compression drivers redefine the reproduction quality in the mid frequency range
- Designed to provide uniform 90-degree horizontal coverage across its' entire frequency range
- Equipped with custom made onboard Class-D amplification, as well as an intelligent networked DSP endpoint

**Technical Specifications:**

- Frequency Response: 50 Hz – 20 kHz
- Max SPL: 151 dB (12 dB crest factor pink noise at 1m, free field, using specified processing and amplification)
- Drivers:
  - LF Component 2x ND13-S 13" Kevlar Neodymium Driver Directional Component 2x ND10-LM 10" Kevlar Neodymium Driver MF Component 2x M140 Kevlar Compression Driver HF Component 2x 3" Compression Driver
- Weight: 85 kg



### L-Acoustics L2 Line Array


L Series is driven by the new LA7.16 high-resolution touring amplified controller, which supports L2 with 16 channels of high-power amplification and processing. L Series is also easier on the environment as it is with deployment.

**Main Features include:**

- Line source technology perfected with PULS
- Best in class SPL/m, SPL/kg, SPL/m2
- Clean stage and neighbouring area with Integrated Cardioid
- Fast and errorless deployment

**Technical Specifications:**

- Max SPL: 155 dB
- Bandwidth: 45 Hz- 20 KHz
- Transducers: LC: 4 x 12" LF: 8 x 10" HF: 8 x 3"
- Weight: 158 kg
- Directivity V: 10° H: Four modules Panflex:70° / 90° / 110° Integrated cardioid
- Maximum SPL1
- Full element: 155 dB ([L2 70])
- First module: 147 dB ([L2 70])
- Nominal impedance: LC/LF: Bass-reflex, L-Vents, HF: DOSC waveguide, Panflex
- Connectors: 1 x 37-point male connector (32 points used)



### TOA SR-A12S Line Array


Featuring the line arrayed wave front control technology that creates sound fields with uniform sound pressure and high sound clarity, TOA's SR-A12S is a two-way line array speaker ideal for short distance sound transmission. The SR-A12S employs the multi-amplifier drive system. Recommended digital speaker processor is the DP-SP3.

**Main features include:**

- Compact and powerful 2-way modular speaker units
- High-performance driver units
- Wavefront control that functions to obtain the best possible performance from the high frequency drivers
- Adjustable sound coverage through two speaker configurations

**Technical Specifications:**

- Enclosure Type: Bass-reflex
- Power Handling:
  - o Low frequency: 450 W
  - o High frequency: 180 W
- Rated Impedance:
  - o Low frequency: 8 Ω
  - o High frequency: 16 Ω
- Sensitivity:
  - o Low frequency: 98 dB (1 W, 1 m)
  - o High frequency: 109 dB (1 W, 1 m)
- Frequency response: 50 Hz - 20 kHz (with optional DP-SP3)
- Crossover Frequency: 1 kHz (with optional DP-SP3)
- Directivity Angle: Horizontal 90°, Vertical 15°
- Speaker Components:
  - o Low frequency: 30 cm cone-type
  - o High frequency: Wavefront control horn 90°x 15° + compression driver x2
- Weight: 47 kg (including accessories)





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## IMPARTING CUTTING-EDGE SOLUTIONS TO AUDIO ENGINEERING & LIGHTING FRATERNITY

Rock star speakers spill the beans on their mastery of recording, mixing, mastering, live sound engineering, lighting design, audiovisual integration, and more. Three days at PALM is revelation of expertise and techniques to achieve excellence in protocol standards in music tracks, soundtracks, and the live mix or the lighting console and Stage Systems engineering.

Professional camaraderie at the largest gathering of professional sound engineers, rental companies, event management companies, systems integrators, and AV consultants is the highlight of the PALM CONFERENCE.

### Scope Of Work

- Present the Music to the audience
- Understand the Artists Intention
- It can be Covers or a new Arrangement
- Mixing New Arrangement Required



### AUDIO-TECHNICA TURNS HEADS WITH AT-LP8X TURNTABLE

Audio-Technica announced the launch of its latest turntable, the **AT-LP8X**, designed for audiophiles seeking high-end performance with precision-engineered features. Built with a direct-drive motor, the AT-LP8X offers accurate playback with enhanced stability, although it is tailored specifically for high-fidelity listening rather than DJ applications.

A defining feature of this model is its J-shaped, aluminium tonearm. Engineered with an automatic lift mechanism, it stops the motor as soon as a record finishes to protect the needle from unnecessary wear. Complementing the tonearm is a new AT-LT10 headshell that

connects seamlessly to the black AT-VM95E cartridge, which is known for its versatility and performance in high-resolution playback.

To combat audio distortion from

external vibrations, the AT-LP8X is built on a sturdy MDF plinth. The unit incorporates a rubber-damped, anti-resonance die-cast aluminium platter with a 2.5 mm rubber mat,

which minimizes vibrations and interference. Adjustable feet add further stability to optimize sound clarity.

The AT-LP8X takes inspiration from 1960s and 1970s design, featuring a sleek matte black finish and understated controls. At the back of the unit, users can connect their choice of amplifiers through the detachable RCA cable and phono-level output, adding to its adaptability across various listening setups.

With a blend of retro aesthetics and modern engineering, the Audio-Technica AT-LP8X is poised to appeal to both seasoned audiophiles and new enthusiasts alike.



The latest AT-LP8X turntable by Audio-Technica

### ALPHATHETA'S NEW DJ TOOLS REVOLUTIONISE MIXING

In an impressive expansion of its DJ product line, **AlphaTheta Corporation**, the parent company of **Pioneer DJ**, unveiled three innovative products designed to enhance the accessibility, precision, and flexibility of DJ'ing for beginners and professionals. The latest releases - the **DDJ-FLX2 Controller**, **HDJ-F10 Wireless DJ Headphones**, and the **XDJ-AZ All-in-One DJ System** - each bring distinct, ground-breaking features to the table.

#### The DDJ-FLX2 Beginner-Friendly Controller

The DDJ-FLX2 DJ controller is AlphaTheta's response to the growing demand for beginner-friendly, portable DJing solutions. Developed with an intuitive interface, this device allows aspiring DJs to jump right into mixing and applying effects with a simple setup. It's compatible with multiple DJ applications such as rekordbox, Algoriddim's djay, and Serato DJ Lite, enabling seamless integration with popular streaming services.

The controller's **Smart CFX** and **Smart Fader** functions are designed to ease newcomers into the world of DJing. The Smart CFX feature, as



The DDJ-FLX2 Controller launched for new beginners is intuitive and easy to use

AlphaTheta describes, allows users to "recreate complex and dynamic effect techniques used by professionals with the simple turn of a knob." Smart Fader, on the other hand, simplifies track transitions by automatically adjusting volume, tempo, and bass, ensuring that even beginners can achieve smooth transitions across diverse tracks and genres.

#### Additional technical specifications include:

- USB-powered for portability, with a compact design that makes it ideal for on-the-go DJs.
- Plug-and-play capability via USB Type-C, which enables connectivity without an external power supply.

- Performance Pads to incorporate creative elements into mixes, offering modes like Hot Cue and Pad FX for custom effects.
- Sampler function for additional sound effects, allowing beginners to experiment with professional techniques like finger drumming.

The DDJ-FLX2's lightweight structure and smart features give new DJs a clear path to develop their skills while also providing advanced mixing tools for casual or party performances.

#### The HDJ-F10 Professional Wireless Headphones with Ultra-Low Latency

In tandem with the DDJ-FLX2 con-

troller, AlphaTheta also launched the HDJ-F10, a set of professional-grade wireless headphones equipped with **SonicLink technology**. Designed specifically for DJs, the HDJ-F10 addresses one of the most significant challenges in live monitoring—latency. Conventional Bluetooth headphones have



AlphaTheta's New Wireless HDJ-F10 headphones

often struggled with delay, making them unsuitable for real-time mixing. The HDJ-F10, however, achieves an impressive 9 milliseconds of latency, significantly outperforming traditional Bluetooth codecs.

(Continued on page 81)



NATIVE INSTRUMENTS LAUNCHES PORTABLE TRAKTOR Z1 MK2 DJ CONTROLLER

Native Instruments has introduced the **Traktor Z1 MK2**, the latest evolution of its popular DJ mixer controller and soundcard. Designed with portability and functionality in mind, the Z1 MK2 offers a compact, intuitive layout suited to home mixing, casual events, and advanced modular setups. Building on the original Z1 model, this updated version delivers improved hardware, high-resolution OLED displays, and enhanced audio capabilities, making it an appealing tool for both new and experienced DJs.

The Traktor Z1 MK2 comes bundled with Traktor Pro 4 software, which includes powerful new tools such as iZotope's stem separation and mastering technology, a built-in drum machine, and flexible beatgrids. These features enable DJs to effortlessly mix tracks with varying tempos and genres. The Z1 MK2's design also integrates three

high-resolution OLED displays, allowing DJs to view essential mixing information without needing to check their laptop frequently.

A dedicated Stem Control Layer is another key addition, providing precise volume control for individual stems to create more dynamic and creative mixes. Additionally, the Mixer FX Section offers streamlined one-knob control over nine effects—such as filter, reverb, delay, and gater, for adding real-time enhancements to

tracks. The Z1 MK2's four-deck control also gives DJs the flexibility to manage multiple decks in Traktor Pro 4, ideal for more complex performance setups.

Reflecting a modern design aesthetic, the Z1 MK2 includes a transparent undershell with customisable LED lighting, allowing users to personalise the look of their setup.

With DJs in mind, Native Instruments designed the Traktor Z1 MK2 to cater to various skill levels. The

layout includes essential features such as two-channel volume sliders, a crossfader, three-band EQ, and dedicated controls for mixer effects. "The Z1 MK2 was designed with all DJs in mind—from those learning to mix, to seasoned professionals in need of a portable yet powerful DJ controller," Native Instruments states.

Thanks to plug-and-play connectivity, the Z1 MK2 can be set up quickly for gigs, practice sessions, or mobile performances, while the compact design allows for easy transport. Its modular nature also makes it compatible with other Traktor devices, including the X1 MK3 and F1, enabling DJs to expand and customise their setups further.

With its streamlined interface, portable design, and advanced mixing features, the Traktor Z1 MK2 offers a versatile solution for a wide range of DJing applications.



The Traktor Z1 MK2 DJ Controller by Native Instruments made for streamlined control

ALPHATHETA'S NEW DJ TOOLS... (Continued from page 80)

According to AlphaTheta, SonicLink technology enables you to move around as you DJ, without the constraints of headphone cables, which allows DJs to engage with the crowd and move around freely during their sets. When used with the dedicated HP-TX01 transmitter, SonicLink delivers seamless audio streaming directly from the mixer to the headphones, ensuring "accurate monitoring and mixing without delay."

Key technical specifications and features include:

- 40 mm drivers with a PEEK-PU-PEEK composite diaphragm, ensuring a high-resolution sound and broad frequency range for precise monitoring.
- Bass-reflex duct and air chamber design to enhance bass reproduction and provide punchy, accurate sound even in loud environments.
- Noise Cancelling and Transparency modes, offering DJs the flexibility to either block out external sounds or let ambient sounds pass through for improved interaction during sets.
- Bluetooth connectivity for versatile use beyond the SonicLink transmitter, suitable for both professional DJ settings and everyday listening.
- MIL-STD-810H shock resistance standard, ensuring durability for DJs

on the go. The HDJ-F10 is available both as a standalone product and as part of the HDJ-F10-TX bundle, underscoring AlphaTheta's commitment to meeting the needs of DJs who value both mobility and precision.

The XDJ-AZ All-in-One DJ System

For DJs seeking a professional, all-in-one setup, AlphaTheta's new **XDJ-AZ system** incorporates advanced features inspired by AlphaTheta's CDJ-3000 and DJM-A9 club products. This four-channel DJ unit offers a comprehensive feature set that makes it ideal for club environments and professional DJ performances.

The XDJ-AZ's full-size

jog wheels, complete with on-jog screens, mimic the feel of AlphaTheta's club-grade products, while a 10.1-inch colour touchscreen provides an intuitive interface for controlling up to four decks. The addition of built-in WiFi and support for popular streaming platforms such as **Beatport** add a layer of convenience for DJs who rely on extensive music libraries.

Special features of the XDJ-AZ include:

- Four-deck playback from a single USB, which streamlines the workflow for DJs juggling multiple tracks.
- Low-latency wireless monitoring via SonicLink, eliminating the need for separate transmitters and allowing

wireless headphone connectivity directly to the unit.

- Mixer section modelled after DJM-A9, featuring Beat FX options like Echo, Ping Pong, Flanger, and Roll, as well as an FX Frequency function for targeted frequency manipulation.
- Master XLR and Master RCA outputs, quarter-inch TRS booth outputs, and combi-jack microphone inputs, which allow for flexible audio output configurations.
- Ethernet port and USB-C integration for linking multiple units and connecting with rekordbox and Serato DJ, providing DJs with versatile control and software integration options.

AlphaTheta's introduction of SonicLink wireless compatibility with the XDJ-AZ highlights its forward-thinking approach to DJ equipment design, as DJs can now pair with the HDJ-F10 headphones for a fully wireless setup. The XDJ-AZ's robust configuration and compatibility with rekordbox and Serato DJ software also cater to modern DJing needs, from traditional mixing to digital audio streaming.

As AlphaTheta continues to push boundaries, these products demonstrate a commitment to making DJ'ing more accessible while also meeting the needs of seasoned professionals.



AlphaTheta's new XDJ-AZ flagship DJ unit for seasoned professionals

## ELATION APPOINTS BRAVEN GREENELSH AS CHIEF MARKETING OFFICER

**Elation** has announced the appointment of professional brand strategist, **Braven Greenelsh**, as the company's new Chief Marketing Officer (CMO). Greenelsh, an entrepreneur and award-winning thought leader, brings an extensive background in corporate identity and product design to the table. His collaboration with Elation spans several years, contributing to the success of some of its prominent brands, such as **PROTEUS** and **Obsidian Control Systems**.

**Toby Velazquez**, CEO of Elation and President of the **ADJ Group**, expressed his enthusiasm about the appointment, stating, "We have always valued our brand as a vital part of our business, and as we continue to relentlessly push boundaries in

design, engineering, quality, and reliability, I've personally recognized the need to amplify our marketing efforts. This is why we made the decision to invest in a proven visionary



**Braven Greenelsh, Chief Marketing Officer, Elation**

like Braven, whose fresh marketing ideas will complement our ongoing mission to elevate the extraordinary Elation brand to new heights."

Greenelsh has over 25 years of experience as an executive-level consultant in brand marketing and design. He has worked with leading sports, entertainment, and technology companies, including **FOX Studios**, **NFL**, **Sony Pictures**, and **Emirates Airlines**, accumulating more than 30 awards for his work. His expertise has been featured in notable publications such as the *Los Angeles Times*, *Forbes*, and *The New York Times*.

In addition to his new role at Elation, Greenelsh will continue his work with **La Visual**, a brand consultancy, leading Elation's global marketing efforts. His

responsibilities will include brand development, digital strategy, team growth, and content management. Velazquez added, "Braven's passion for design and branding will not only give our marketing efforts a much-needed boost, but his expertise and leadership in shaping and growing a brand will have benefits across our business."

Elation is a global leader in the lighting industry, known for designing and manufacturing a wide range of high-quality entertainment lighting products. The company's portfolio is highly valued by production houses and lighting designers worldwide. This strategic leadership appointment signals Elation's ongoing commitment to elevating its brand and expanding its influence in the global lighting industry.

## MANUELE POLI RETURNS TO LEAD DBTECHNOLOGIES' EXPANSION IN APAC REGION

**dBTechnologies** has announced the reappointment of **Manuele Poli** as Head of Sales for the APAC region. In this role, Poli will spearhead the brand's strategic expansion across Asia and Oceania, focusing on both the dBTechnologies and VIO product portfolios. His leadership is expected to significantly boost the company's visibility and prominence in the touring and installation solutions market.

Poli brings extensive experience in business development and professional audio, having previously served as Asia-Pacific



**Manuele Poli as Head of Sales, dBTechnologies, APAC**

Business Unit Manager for dBTechnologies from 2015 to 2020. His new appointment marks his return to the company after working in various business development roles, most recently at **SolarPower Europe**. In his current role, Poli will work closely with dBTechnologies' partners in the region, building relationships and connecting with key figures in the professional audio industry.

Commenting on his return, Poli shared: "It's an incredible feeling getting back where everything started for me professionally. I love the APAC region, humanly and professionally. This region, with its rich mixture of

cultures, traditions, and people, is a fantastic place to be and a vast and highly dynamic market for the pro audio industry. My objective is crystal clear: to elevate dBTechnologies to a premium brand in APAC. The company has given me the tools to build a solid structure that will serve the region as it deserves; now, it's just a matter of making it happen."

With Poli's expertise and a comprehensive strategic vision, dBTechnologies looks forward to enhancing its presence and continuing its growth trajectory in the APAC market.

## SONANCE APPOINTS MORTEN JORGENSEN AS NEW VICE PRESIDENT

**Sonance**, one of the most recognised leaders in architectural audio solutions with a primary focus on residential applications, has announced the addition of **Morten Jorgensen** as Vice President of **Professional Audio**. This strategic appointment signals Sonance's commitment to expanding its influence within the global professional audio market.

"At Sonance, we are assembling a

talented team to drive our vision of integrating seamless audio solutions across diverse environments. Morten's extensive experience and industry expertise will be instrumental in elevating our professional audio division," said **Mike Sonntag**, Chief Revenue Officer – Commercial at Sonance. "We are thrilled to welcome Morten to the Sonance family. His deep knowledge and passion for innovation align

perfectly with our vision of delivering cutting-edge solutions to our customers."

Jorgensen joins Sonance with over three decades of experience in the professional audio sector, most of which he spent at **Bose Professional**. His career has spanned roles in research, product development,



**Morten Jorgensen as Vice President of Professional Audio at Sonance**

*(Continued on page 83)*



JAMES GALLAGHER-POWELL JOINS D&B GROUP AS CHIEF STRATEGY OFFICER

d&b group announces the appointment of **James Gallagher-Powell** as Chief Strategy Officer (CSO), a role that will support the company's ambitious growth and innovation strategies. Gallagher-Powell's expertise in strategic planning, finance and operational excellence will be instrumental as d&b group continues to expand its position as an experience technology company.

Gallagher-Powell joins d&b group following a number of strategic and financial leadership roles with globally recognised organisations including **PwC**, **RFRSH** and **CSM Sports & Entertainment**, where he was



**James Gallagher-Powell, Chief Strategy Officer (CSO), d&b group**

Group CFO. His proven track record in building growth models and improv-

ing business performance through strategic initiatives will complement d&b group's ambition to drive industry-leading innovation and operational success.

James is optimistic about his new role stating, "I'm delighted to join d&b at such an exciting phase of its growth story. d&b has set such a high standard in the industry, and I look forward to working with the talented team here to continue shaping our future trajectory and expanding our global reach."

Gallagher-Powell's responsibilities as CSO will span leading the company's long-term strategic direction, identifying new opportunities for growth, leading M&A efforts and further strengthening d&b's position as a global leader in audio and event technology. His senior management experience leading market expansion efforts will be instrumental as d&b continues to enhance and grow its offerings and customer experience.

"I am thrilled to welcome James to our executive team and to the d&b family. Our ambition has always been to address future trends and create technologies, business models and organisational structures accordingly. With James' strategic experience he will be invaluable in helping us continue to set trends and support our customers in transforming their businesses," quotes **Amnon Harman**, CEO d&b group.

SONANCE APPOINTS MORTEN JORGENSEN... (Continued from page 82)

marketing, and engineering, contributing significantly to Bose Professional's growth and global standing as a premier provider of professionally installed audio solutions. Most recently, Jorgensen led global sales for Bose Professional's professional division, enhancing his expertise in driving large-scale audio solutions worldwide. His comprehensive experience positions him to contribute strategically to Sonance's plans for growth and innovation in professional audio.

Reflecting on his new role, Jorgensen shared, "I am excited to join Sonance and work with a talented team dedicated to shaping the future of professional audio. Together, we will push boundaries to continue to deliver outstanding audio solutions."

Sonance's investment in industry expertise demonstrates its ambitions to broaden its professional audio portfolio, bridging the brand's residential focus with its aim to expand within the professional market.

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