

# ETA ENTERTAINMENT TECHNOLOGY ASIA

For The Technical And Production Professionals in Asia



## EXPLORING THE NEW & DYNAMIC LANDSCAPE OF INDIA'S LIVE EVENT INDUSTRY

**MAY 2023**

### NEWS:

Spot-Light Systems Invests in  
Large Array of Robe Moving Lights

### ENNOVATION:

FlexPoint Series Completes Trio of  
Premium Loudspeaker  
Categories for Martin Audio

### INSIGHT:

The Ultra Cool Concert Experience

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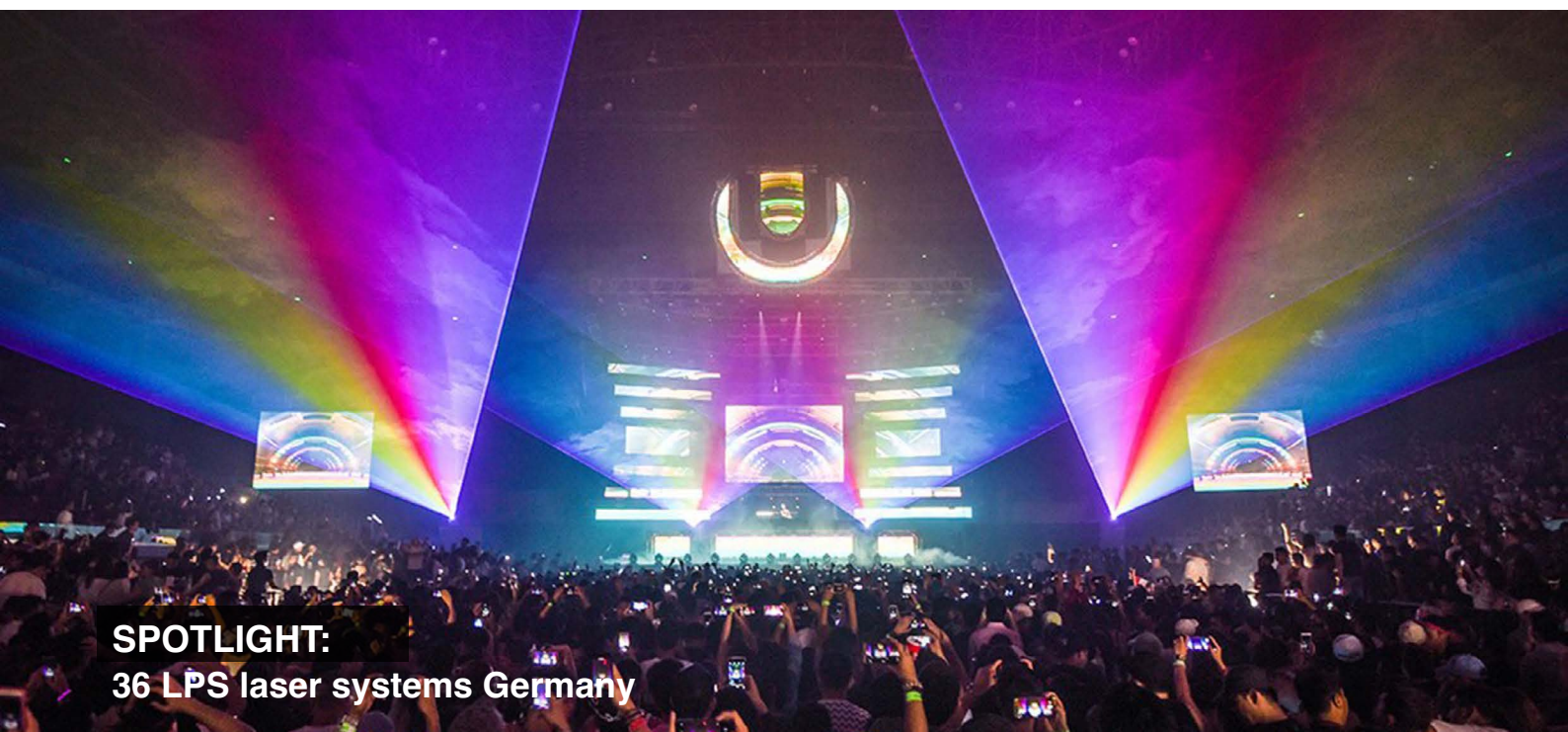
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The Indian events industry and the associated rental&staging sector is thriving. After the Covid-19 setbacks, the rental&staging industry in India started to pick up momentum. A report released by BookMyShow titled "Best of 2022" suggests that over 19000 live events took place in 2022 alone, with over 8 million Indian audiences stepping out for on-ground live

entertainment. Based on the current trajectory, industry insiders and experts believe that the live event market is poised to grow at an unprecedented rate of 25 – 30% in 2023. The quest for delivering bespoke on-ground live event experiences has enlightened event producers, production designers and technical personnel with crucial learnings about scale and concept and the multitude of combinations of how these two aspects interact. But that is not all – production companies are now paying attention to quality AVL solutions to augment the experience. Read all about it in our extensive report within the magazine.

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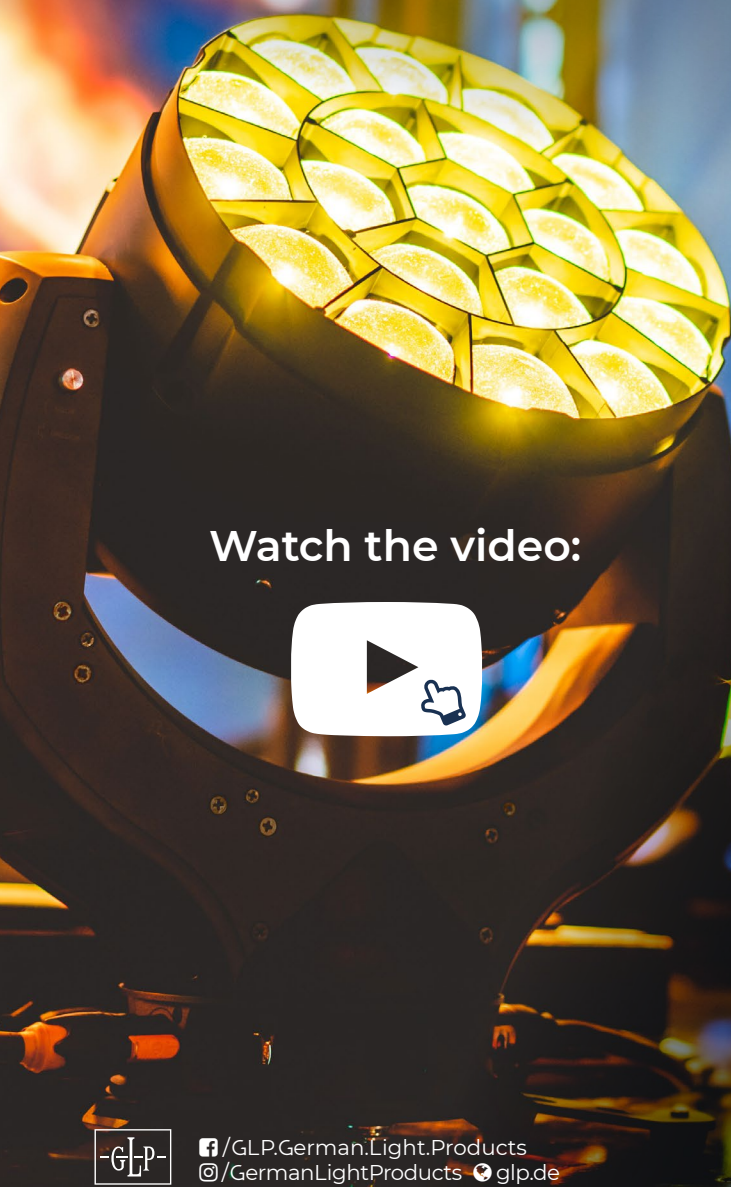
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## Outline's Newton Receives Third Patent Plus Further Platform Developments in the Works



**GLOBAL:** Outline's Newton audio processor has been awarded a European patent [N° EP3776932B1]. The European Patent Office is consistently ranked as one of the world's leading patent offices by users for the quality of its patents and services and the granted patent will be validated in numerous European countries.

This qualification follows the awarding of an Italian patent [N° 102018000004143] for Newton in 2020 and is the result of significant investment and effort on the part of the company. It is the third patent awarded to Newton, the other covering the unique WFIR filter topology that is a key factor in its audio performance.

Outline leapt to the forefront of innovation in advanced FPGA-based audio processors when Newton was launched in 2017, since then it has been adopted by leading companies and technicians globally. One of many happy users, Joe Baker exclaimed: "Outline's Newton - Don't leave home without it!"

In related news, Outline is going to introduce a completely new multi-platform control software for Newton, once again entirely conceived and created at Outline HQ. The control suite will be focused on enhancing user-machine interaction and making life even easier for FOH and system techs. It will be available in Spring 2023.

[Outline/Newton](#)



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## Claypaky Dominates Qatar Vision's Roster for High-Profile, World-Class Events



**MIDDLE EAST:** Qatar Vision has deployed numerous Claypaky lighting fixtures for its most high-profile projects. The Doha-based firm offers a comprehensive slate of event production, technical integration solutions, marketing, creative design, video production, information technology and large-scale branding to a roster of world-class clients.

"We count on Claypaky to help us deliver successful events time after time," shared Qatar Vision CEO/Managing Director Sharif Hashisho. "Claypaky fixtures often dominate our lighting rigs and give us the innovative, unique and versatile performance we need for top-level projects." Hashisho often serves as a creative concept designer and executive producer for Qatar Vision projects.

For example, the 25th anniversary of Qatar Airways, renowned for its service and flight experience, was celebrated in spectacular style at Khalifa International Stadium in Doha with top government officials and international airline executives and manufacturers in attendance. The ceremony took place during IATA's 78th Annual General Meeting & World Air Transport Summit in Qatar, for which Qatar Vision also produced the organization's gala.

Inspired by the upcoming FIFA World Cup Qatar 2022 to be held in the stadium, Qatar Vision gave the Qatar Airways celebration the flavour of a world-class event with a multimedia and fireworks show, pitch-side gala

dinner and a grand finale concert by Jennifer Lopez for 1,500 guests and 10,000 Qatar Airways employees.

The multimedia show highlighted the history, culture and development of both Qatar and Qatar Airways. The program's content was mapped onto the stadium pitch and accompanied by a live folklore dance performance. Qatar Vision conceptualized, planned, built and delivered the entire venue overlay, including decoration and branding, which highlighted Qatar Airways' multiple accolades as Skytrax's "Airline of the Year". The look and feel of the celebration reflected Qatari hospitality and luxury with a building of emotion and narrative in the brand promotion, multimedia show and protocol elements leading up to the spectacular finale concert.

The once-in-a-lifetime event required an enormous roster of technology, including more than 800 moving and static lights synchronized to the show segments. The stage for Jennifer Lopez featured more than 500 moving lights and strobes plus customized triangular LED video screens. Claypaky fixtures dominated the lighting rigs with lighting designer Syam Gopinath selecting 100 x Claypaky Xtylos, 100 x K-EYE K20 HCR and 100 x Scenius Unico fixtures for the celebration in addition to 60 x Sharpy Plus, 50 Hepikos wash lights and 60 x portable GlowUp luminaires.

The event was considered a stand-out in the airline and IATA history successfully showcasing Qatar Airways as a true international 5-star airline and previewing FIFA and Qatar's readiness to host the World Cup.

"Qatar Vision is one of the most dynamic companies in the Middle East, and Claypaky is proud to support their world-class projects with our world-class lighting fixtures," noted Egor Popovski, Claypaky's regional sales manager for the Middle East. "The spectacular projects produced by Qatar Vision and featuring Claypaky products dazzle audiences with one-of-a-kind shows and industry firsts that make for memorable events."

[Claypaky](#)





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## Chauvet Increases Product Offerings with Acquisition of LynTec



**GLOBAL:** In keeping with its mission of providing customers with cutting-edge technological solutions, Chauvet has acquired LynTec, a global supplier of electrical power solutions for lighting, video, and audio systems. Founded in 1982, LynTec is widely known for its advanced lighting control panels, with products installed in well over 10,000 sites throughout the world.

"With the addition of LynTec to our group of companies, we will be able to offer our customers a complete solution that embraces lighting, video, show programming, and control at every level from the creation of a design, to the control of power at an installation," noted Albert Chauvet, CEO of Chauvet. "We not only value LynTec for its technology, we've also been very impressed by the company's ongoing commitment to improving its products and level of service to customers. In this respect, it mirrors the same values that have powered the growth of Chauvet."

Like Chauvet, LynTec has been dedicated to offering effective value-driven solutions to every segment of its markets. For example, in the House of Worship market, its panels have been used at Saint Patrick's Cathedral and Church of the Highlands, as well as at churches serving only a small number of worshippers. The same

diversity is also very evident in its mix of the theatrical, sports centre and entertainment venue business, as its products are found in NHL arenas, as well as in high school auditoriums.

"We are very excited to be joining the Chauvet family based on our shared commitment to providing excellence to our customers in all facets," said Mark Bishop, president of LynTec. "The synergies between the two companies will enable us to continue developing outstanding products while providing unmatched customer service and project solutions for our current and future customers."

In addition to lighting control panels, such as the award-winning LCP Lighting Control Panel, LynTec makes remote control circuit breaker/relay panels, and Pro AV control panels. As it's grown, the company has continued to develop innovations. At LDI 2022 it introduced the highly acclaimed PDS-12 Sequencing Relay Panel and Smart Switch Sets. Given this commitment to innovation and customers, LynTec should find itself "right at home" at Chauvet.

[Chauvet](#)



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## ENTECH Roadshow Returns for the Post-Converged AV World

The Entech logo, featuring the word 'entech' in a lowercase, sans-serif font. The 'e' is stylized with a curved line above it.

**AUSTRALIA:** The ENTECH Roadshow visits every major population centre in Australia, opening up access to more business opportunities for AV and entertainment technology professionals. ENTECH will visit Sydney, Melbourne, Brisbane, Adelaide, and Perth in October 2023, bringing a fresh perspective on the industry to every local market.

As confirmed by 2023's ISE exhibition in Barcelona, the entertainment industry has entered a 'post-converged' phase. The worlds of unified communications, IT, AV, lighting, video, audio, signage, staging, and control have gone past the transition period of becoming networked and controlled by software, entering a new phase where new business models, products, and markets are emerging.

Manufacturers that were once focussed on one aspect of live performance or recording are now creating products for corporate meeting rooms. Companies that were creating platforms for digital signage are now offering room control and corporate communications. Lighting companies that power huge stadium gigs are creating networked architectural products, as are their audio counterparts. And at the centre of all this, the customer, be they installer, production firm, or consultant, is now partly an IT manager and concerned with the integration of systems as a whole.

ENTECH, proud of its origin in live production and touring, acknowledged that this integrated environment is now the daily reality in every industry professional's work. As such, ENTECH seeks to reflect the needs of the industry and present real-world products and solutions for real-world projects and workflows.

In 2023, October's Roadshow will reflect this in a diverse exhibitor and attendee presence that holds up a mirror to the industry as it now defines itself. Expect to see LED and video applications for everything from small meeting rooms to large sporting events, conferencing solutions for every type of organisation, lighting and audio for both staging and institutional installs, integrated software and control solutions, and every type of connecting technology.

If you are interested in exhibiting at ENTECH 2023, click the link below to email the show organisers and obtain a prospectus.

[ENTECH 2023](#)





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## Anita's Theatre Continues Tradition of Change with CHAUVET Professional



**AUSTRALIA:** Anita's Theatre is no stranger to change. On December 18, 1965, when the curtain went down on a double billing featuring Stephen Boyd in "Genghis Khan" and Carl Gonzales in "The Little Ones," the classic venue, then known as the King's Theatre, closed its doors after more than 40 years as the main cinema in this seaside village located 60km south of Sydney.

Less than three years after the theatre stopped showing films, all seats were removed and a concrete floor was laid in the stall area. Thus, the venue was reborn as Skateland. In 2007, long after its days as a roller rink had ended, the venerable building began anew as a multi-purpose live performance venue.

Today, as Anita's Theatre, the classic-looking site is continuing its tradition of change, having recently become Live Nation's first regional live music venue in Australia. With this change has come adaptation. Looking to update its lighting rig and enhance its flexibility, the theatre added 28 x CHAUVET Professional fixtures imported by Showtools International and installed by Pro Sound and Lighting.

The new rig not only gives the theatre a wider range of lighting options, but it also upgrades the level of the shows for the higher-profile acts, such as Richard Marx,

Pavement, Peter Murray, and Belinda Carlisle that are appearing there in 2023.

Designed by Pro Sound and Lighting's John Campbell in consultation with Andre Vanderwert, the new system features 12 x Maverick Force S Profiles, which are flown on the truss over the audience and positioned on totems, as well as 6 x Maverick MK2 Washes, which, hung on mid-stage truss. Together, these units deliver downlighting, specials, stage washing and aerial effects.

Also in the rig are 2 x STRIKE Array 2 Blinders, flown over the front of the stage and used for audience lighting, as well as 6 x Color STRIKE M fixtures. Positioned on truss totems that run across the width of the stage. These colour-rendering motorized strobes fill a variety of roles at Anita's Theatre, from creating eye-pleasing specials to revving up the crowd with their intense white strobing.

"We choose these fixtures, as they have never let us down in the past," Campbell acknowledged. Adding that the theatre's updated rig is "keeping our international touring operators and technicians happy!" Judging from the reaction of the crowds who are packing this historic venue every week, the lights are going over very well with fans too!

**CHAUVET Professional**



## Analog Way Signs Exclusive Distribution Agreement with Acoustic & Lighting System (Vietnam)



**acoustic & lighting system**



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**VIETNAM:** Acoustic & Lighting System (Vietnam) Co., Ltd, which specialises in the full spectrum of audiovisual and lighting solutions, from design to supply, integration and after-sales support, has been appointed by Analog Way as the brand's new distributor in Vietnam.

The companies already work together as Acoustic & Lighting System Sdn. Bhd is the exclusive distributor of Analog Way in Malaysia, where they organized a successful product showcase and certification training for operators. At the event, individuals from the rental and staging industry, as well as consultants and system integrators participated in presentations showcasing the latest Aquilon, Alta 4K, Eikos 4K, and RC400T products and were also able to handle the products.

"We had a great time reconnecting with the existing community of Analog Way in Malaysia, along with some new faces as well," said Michelle Yeo, business development director of Acoustic & Lighting System Sdn Bhd. "We introduced them to the new product lines and heard feedback useful in supporting this market further. The support from Analog Way's team has been great

and we're excited about this partnership growing the market together."

"Given the current AV landscape in Vietnam we see A&L as the best partner for Analog Way to drive our business plans in this part of the region," echoed Jez Lim, Analog Way's regional channel manager for Asia.

"The Vietnamese market is an untapped opportunity for high-quality image processing hardware that is often overlooked," added Eugene Yeo, GM of A&L. "Analog Way's latest product ranges align to what's needed in the next coming years, and we are happy to represent the brand in Vietnam."

Benjamin Lee, who leads the Acoustic & Lighting System team based in Vietnam, concluded: "Introducing Analog Way into the Vietnam market will create a paradigm shift in how image processing is perceived and how solutions are created. We look forward to introducing these products to our client base here in Vietnam."

[Acoustic & Lighting System\(Vietnam\)](#)

## Top Rental Company Invests in Large Array of Robe Moving Lights



Lighting technician Asbjorn Hemmingsen, project manager Ben Cooper, workshop manager Mike Skinner and head of lighting production, Matthew Tong. ©Louise Stickland

**NEW ZEALAND:** One of New Zealand's top lighting rental companies, Spot-Light Systems, based in Auckland and now a division of the NEP Live Group, has continued to invest in Robe moving lights as the nation recovered from the pandemic. They have added 24 MegaPointes, 12 Tarrantulas and for the first time, 20 ESPRITES to their inventory.

While New Zealand was able to keep Covid cases to a minimum through strict quarantine and travel restrictions, full-scale and capacity shows and live events did not properly resume until a few months into 2022, when things became incredibly busy. This is what motivated these most recent Robe purchases, according to Spot-Light Systems' head of lighting, Matt Tong.

Business and enthusiasm for the arts, performance and events are now surpassing 2019 levels as promoters, organisations and event organisers jostle to squeeze in shows that didn't run for two years and accommodate the many new ones that the creative world imagined during that time. Touring has now re-started with a slew of national and international bands hitting the road, further fuelling the demand for production technology.

With nearly 400 Robe moving lights already onboard, Spot-Light Systems returned to a brand they "know and trust" for a multipurpose LED profile type fixture, settling on the ESPRITES to join the mix of Robe BMFL Spots, BMFL Blades, MegaPointes, Tarrantulas, LEDWash 600s



and LEDBeam 100s and 150s. It is currently the largest concentration of Robe moving lights in the country.

“Robe is ubiquitous in New Zealand and elsewhere, so that offers great value for money, firstly for servicing our own shows then as a cross rental item when available,” stated Matt, adding that their Robe luminaires have been constantly busy, “all the Robe products are worked hard and offer great performance, and everyone is happy to use them”.

The ESPRITES were ordered quite soon after the acquisition of Spot-Light Systems by NEP Live. The mother company also owns broadcast lighting and video rental specialist, Big Picture, which, conveniently for continuity, also has Robe moving lights in stock. The brand has a strong presence in New Zealand thanks to the proactivity of distributor Jands New Zealand.

“We needed a general purpose ‘workhorse’ LED moving light that was bright, quiet, had great colour mixing and was lightweight,” Matt noted, expecting the ESPRITES to become a signature fixture type, just as 700 series moving lights did during their era.

Before fully committing, Spot-Light did its due diligence by conducting a shootout with selected competitor products. Beam uniformity and the overall quality of light were also factors in the choice, “ESPRITE basically ticked all our ‘essential’ boxes and more, like Ethernet connectivity, framing shutters and a good menu system that’s straightforward for technicians to set up plus many other refinements.”

The quest to produce more sustainable events was also a consideration in choosing an LED source which needs less cooling and heat management, reducing electricity consumption in addition to that saved by light engines themselves. The benefits of Robe’s TE (TRANSFERABLE ENGINE) technology, allowing different or new LED engines to be swapped in and out the fixtures in less than 5 minutes to cover different applications, were also of interest.

Furthermore, ESPRITES is also tied into the prolific broadcast, TV and awards show work covered by Big Picture, and now in the house, they can move between the two companies to maximise use. “All 20 x ESPRITES are out most of the time,” Matt elucidated.

Spot-Light Systems’ ESPRITES were recently on a George Thorogood tour and have featured on many others, while their BMFLs, MegaPointes and LEDWash 600s were on the rig for a recent show at Spark Arena by George Ezra (lighting design by Cate Carter, operated on the road by Chris Taylor). Matt described the BMFL as the “light that keeps on giving”.

Spot-Light Systems is the first dedicated lighting division of NEP Live in Australasia, and during the pandemic, they saw the growth potential and invested heavily, as the opportunity arose, predicting that the industry would get exceptionally busy once everyone returned to work and it re-booted. Big Picture owns a massive amount of LED screens and video control systems, and as the media of lighting and video continue to converge in visual design, the two companies will work together increasingly to offer clients a superlative service.

## Robe

## J Live Boasts the Largest K2 Inventory in India Thanks to Steady Investment in L-Acoustics



**INDIA:** J Live, also known as Jagdish Sound, is one of the fastest growing sound rental companies in India. And the Gujarat based professional rental services outfit has boosted its pro audio arsenal with a further investment into L-Acoustics brand as it expanded on its existing L-Acoustics K2 loudspeaker system. The organisation has steadily expanded its portfolio of technologies and services over the years; with the company now enjoying the distinction of being the preferred technical supplier for several well-known Indian and foreign artists and performers who have toured the country.

“J Live has grown into one of India’s top touring live sound reinforcement companies. And in response to the growth in the number of live events happening in India, we made a strategic decision to further consolidate our commitment to providing great event experiences by doubling down on further boosting our existing inventory of the amazing L-Acoustics K2 system” stated J Live director, Malvik Bhavsar.

The ace rental solutions provider’s recent purchase includes the addition of 24 more units of the K2 line array modules along with 16 more units of the KS28 subs and 12 more units of the LA12X power amplifiers, plus

associated rigging, accessories and cables; all of which was facilitated by L-Acoustics’ official Indian distribution partner, Hi-Tech Audio & Image.

Malvik affirms that he had his sights on expanding J Live’s inventory of the L-Acoustics K2 system which at the time comprised of 24 modules of the K2 and 16 modules of the KS28 subwoofers. However, the onset of the pandemic forced Malvik to postpone the investment until a more opportune moment came his way.

“We were among the first few companies in India to invest in the L Acoustics K2 system when it first launched in the country. And the performance of the system on-field is absolutely unparalleled. The tonal quality of the K2 is absolutely stunning, and the system exceeds all performance expectations that one may have of it – be it in terms of power output, coverage, ease of setup and calibration, and of course logistics. No wonder the K2 is one of the most preferred loudspeaker systems on artist tech-riders world-wide” informs Malvik, as he reveals the key reasons behind the recent purchase, stating, “We knew that expanding on our existing L-Acoustics K2 inventory would make a significant difference to our



business and the adverse situation in 2020 was only a short-term hurdle. As the industry slowly returns to better times, it's even more important for us to be ready to offer the best sound experience to our clients and partners; and we are hopeful that the upcoming seasons will offer us plenty of opportunities to show the kind of enhanced event experiences that J Live can bring together with our newly expanded K2 system."

The technical team at J Live underwent refresher theoretical and technical training that covered all aspects of rigging and set up of the system. And post this, the J Live team wasted no time in deploying the new system for an elaborate live event that hosted noted regional Indian musicians and singers in performance; where the powerful system served a crowd of over 10,000 people.

"The superior quality of the L-Acoustics K2 system speaks for itself" added Malvik as he continued, "It is extremely popular amongst the most sought-after touring musicians, engineers and system designers, and is one of the most preferred and recommended speaker system on riders. With its compact profile, surprising light weight and exceptional horsepower, the K2 stands as an L-Acoustics flagship product and we knew that expanding on our existing K2 system was absolutely the right choice for J Live, as we have consistently extended our interest in new technologies and products."

Furthermore, Malvik asserts that the recent addition of the new K2 modules and KS28 subwoofers has put J Live in the unique position of being the first rental services company in India to stock an inventory of over 48 modules of the K2 line arrays and 32 units of the KS28 subwoofers; which automatically earns J Live the distinction of holding the largest K2 system inventory in the country.

Clearly ecstatic about this fact, Malvik shares, "We're extremely proud to have the largest inventory of the L-Acoustics K2 system in India. This further investment into the K2 system not only solidifies our belief in the brand and their product, but helps to strengthen our inventory and allows us to offer an enhanced level of service to a varying range of clients and markets – from corporate, to touring, to theatrical and much more."

J Live

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## Unusual Rigging & Engineering is “Preferred Supplier” for IDEX



**MIDDLE EAST:** Unusual Rigging & Engineering LLC was the rigger of choice for IDEX – the largest defence exhibition in the Middle East – when it took place at ADNEC in Abu Dhabi. The show, which is regarded as the most important tri-service defence exhibition in the world, attracted over 130,000 visitors from 65 countries, with more than 1350 exhibitors across 165,000 sqm of space.

For such a prestigious and sizeable event, David McKean, head of mains and rigging services at ADNEC, brought Unusual Rigging on board to assist the venue rigging team in the installation and management of rigged items throughout all 15 halls for the event.

David commented: “The Unusual team works with us numerous times each year and are well versed in our expectations. This year there were over 100 stands, and Unusual received rigging plans from the rigging manager for each individual stand. From this, they were required to mark out and provide both primary and secondary rigging.”

The quantity of kit required for IDEX was vast, with the crew installing several kilometres of truss, over 1200

rigging points and 500 motorised hoists. The build-up period was 21 days, with all works finished by lunchtime on the last day of the build. As with all projects of this scale, challenges arose – mainly last-minute orders.

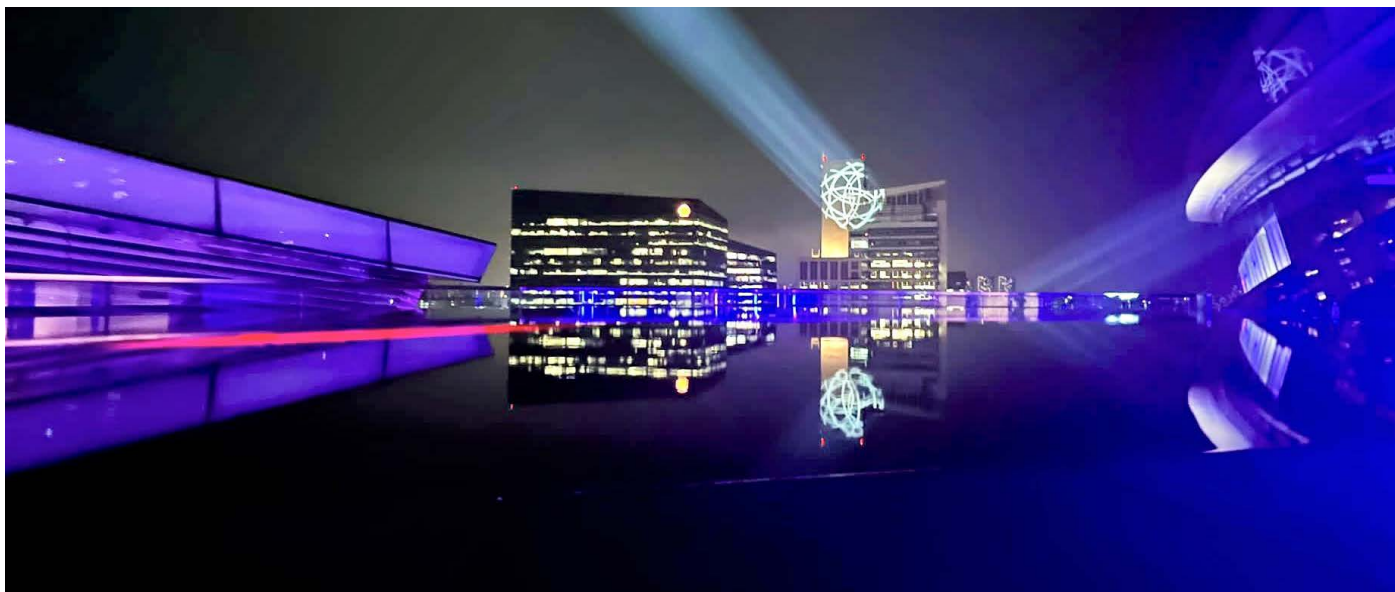
“I have to mention that the entire office team went above and beyond in providing equipment for us to install on exhibition stands at the shortest of notice,” commented David. “And that’s what puts Unusual in a class above its competitors. Their flexibility and knowledge is second to none and you know that you get 100% support from everyone – from the riggers on-site to the staff in the office.”

He concluded: “In addition to the customer service and support, we always know that the equipment Unusual has in stock is first class – always well maintained which gives you the peace of mind that you can trust the kit you’re using. Without doubt, Unusual Rigging is our preferred supplier, and we will always utilise them for both staffing and dry hire throughout this year...and beyond.”

[Unusual Rigging](#)



## Chauvet Open House Visitors Enjoy Breathtaking Views Amidst Star-Studded Product Lineup



**SINGAPORE:** Located 11 floors above the Vista Exchange district, atop the celestial-inspired Star Performing Arts Center, The Star Loft offers breathtaking views from its interior space and enchanting rooftop terrace. This panorama, however, was not the only impressive site that visitors to Chauvet's Singapore Open House got to enjoy in a two-day event that treated VIP guests to a dazzling array of innovative, new products from CHAUVET Professional and its sister brands, including Kino Flo and ChamSys.

Featured in the star-studded lineup from CHAUVET Professional was the widely acclaimed Color STRIKE M motorized strobe, along with the Maverick Storm 4 Profile and Storm 2 Profile, COLORado PXL Bar 16 and PXL Bar 8, the STRIKE Array 2, STRIKE Array 4, the Rogue Outcast 3 Spot, and more.

Kino Flo was represented with products such as the Free Style Air, while ChamSys showcased the MagicQ Stadium Connect, MagicQ MQ70 and QQ20. Complementing the console demos, Aziz Adilkhodjaev, ChamSys' international sales, and business development manager, conducted extensive training sessions.

The first day of the event was attended by over 40 Chauvet distributors from Australia, Brunei, Hong Kong, India, Indonesia, Korea, Malaysia, New Zealand, The Philippines, Singapore, Vietnam, and Taiwan. On Day 2, the Chauvet team welcomed 80 key Singaporean customers, including rental and production houses, systems integrators, and lighting designers.

"This was a wonderful way to lead into spring," said Stéphane Gressier, international sales director of Chauvet. "Not only did this event provide us with the opportunity to showcase many of the exciting new products that our R&D teams have developed, it also was a chance to connect with our supporters in Singapore and throughout the Asia Pacific market to say thank you and share good times—and some pretty spectacular views too!"

[Chauvet Professional](#)

## MA Lighting Continues to Assert its Presence Across India



*Picture Productions India.*

**INDIA:** "MA Lighting is respected the world over for their line of advanced lighting control systems that offer a wide range of features and capabilities to meet the needs of lighting professionals in a variety of settings. And the flagship grandMA3 full size console shines as a beacon of technological excellence as it provides lighting professionals with unparalleled control and flexibility in their lighting designs. The large touch screen interface, encoder wheels, and a range of programming tools that make it easy to create and manage lighting cues and sequences; and its quite apparent why lighting designers across the world are in love with this console. We're absolutely stoked to have added the grandMA3 to our fleet of technologies!" exclaimed an elated Raymond Selvaraj, director of Chennai based ace rental services company Picture Productions India Pvt Ltd who recently invested in procuring a grandMA3 full size lighting console system.

Alongside, Bengaluru based J Davis Prosound & Lighting – one of India's leading and most trusted rental services outfit – also took the decision to add a grandMA3 full size lighting console system to inventory

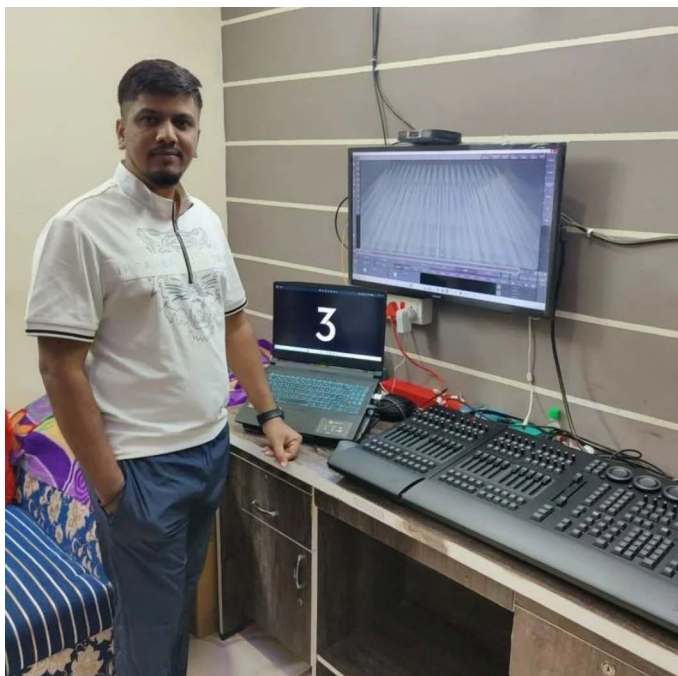


*grandMA3 used in an event by J Davis Prosound & Lighting.*

of impressive lighting technologies. And immediately following the purchase, J Davis Prosound & Lighting deployed the console for the widely acclaimed Echoes of Earth Festival which took place at the Jayamahal Palace grounds in Bengaluru. Santana Davis, managing director of J Davis Prosound & Lighting was all praise about the company's newly acquired grandMA3 console system as he asserted, "The console's fixture control, color mixing, and effects engines offer a wide range of creative possibilities, allowing lighting professionals to create stunning and memorable lighting designs for any type of event or production. And the console is designed to be compatible with a wide range of lighting fixtures



and accessories, making it a versatile and powerful tool for any kind of application. The addition of this cutting-edge lighting console is a testament to J Davis Prosound & Lighting's commitment to providing our clients with the latest and most advanced event production equipment available."



*Avinash Rao.*

On the other hand, Avinash Rao – a tenured lighting designer and programmer based out of Hyderabad who has commissioned the design for numerous live shows, award events, fashion shows as well as grand weddings across India – also recently purchased MA Lighting onPC Command Wing XT along with onPC Fader Wing for his company Lustre Designs & Solutions. Avinash affirms that purchase was driven by the fact that the onPC Command Wing XT offers an extremely intuitive user interface and customizable layout that makes it a popular choice among lighting designers who value its ease of use and versatility; while the onPC Fader Wing as a complementary addition to the Command Wing XT, provides additional faders and buttons for greater control over lighting cues and effects. Furthermore, Avinash explains that since the onPC Command Wing XT and onPC Fader Wing allows users to control lighting fixtures directly from a computer; it allows designers to create lighting designs and cues from the convenience of their own computers, without the need for a physical console – a capability which is particularly useful for

smaller events that might have space constraints, or for remote events where the lighting designer may not be on-site.

The purchases made by Picture Production India Pvt Ltd, J Davis Prosound & Lighting, and Lustre Designs & Solutions, were all facilitated by Hi Tech Audio & Image – the official distributors of MA Lighting in India – who have been extremely persistent and diligent in their efforts to grow MA Lighting's presence across every nook and corner of the country. These efforts are not just restricted to sales; as the company has also pushed forward its agenda to share crucial knowledge and information about the capabilities of the grandMA3 through a series of well-planned training workshops.

With a view to equip lighting professionals with the knowledge and skills needed to operate the console and become familiar with the grandMA3 console's rich set of features and functions; Hi Tech Audio & Image recently conducted a series of grandMA3 Basic User Training workshops in India across four major cities including Pune, New Delhi, Bangalore, and Mumbai. It is revealed that participants who attended these workshops were introduced to the grandMA3's user interface, including its touch screens, encoder wheels, and programming tools. They also learned how to program and operate the console's various features, such as its fixture control, colour mixing, and effects engines.



*Workshop in Pune.*



*Workshop in Bangalore.*

The workshops were held on 5th and 6th April in Pune, 7th and 8th April in New Delhi, 15th and 16th April in Bangalore, and 28th and 29th April in Mumbai; and were open to lighting professionals of all skill levels and provided hands-on training in a supportive and interactive environment. The sessions in each of the cities were led by experienced trainers from MA Lighting, who provided participants with in-depth instruction and guidance throughout the training sessions. Participants were also given access to a range of educational resources, including manuals, training videos, and online forums, to help them continue their learning and development after the workshops had ended.

Hi Tech Audio & Image affirms that the series of grandMA3 Basic User Training workshops conducted thus far have been a great success in attracting a wide range of lighting professionals from across the country; while also providing an invaluable opportunity for participants to learn from some of the best trainers in the industry, and gain precious hands-on experience with one of the most advanced lighting control systems in the market today.



*Workshop in New Delhi.*

**Picture Productions India**

**J Davis Prosound & Lighting**

**Avinash Rao**

**Hi Tech Audio & Image**



## Registration for IAAPA Expo Asia Now Open



**SINGAPORE:** IAAPA Expo Asia will make its comeback when doors open at the Marina Bay Sands in Singapore from 13-16 June 2023. Registration has begun for guests which aim to include general managers, owners, and CEOs of amusement and theme parks, hotels and resorts, water parks, family entertainment centres, location-based entertainment centres, historic/cultural/tourist attractions, museums and science centres, zoos and aquariums, and cruise lines travel to the show to buy rides, connect with attractions industry experts, and more.

### Highlights from IAAPA Expo Asia 2023 include:

- Leadership Breakfast with keynote speaker Tom Mehrmann, president, chief operating officer, Universal Destinations & Experiences, Pacific Rim
- Opening Reception at Universal Studios Singapore
- CEO Talk
- EDUTour of the Jewel Changi Airport
- Educational sessions focused on inclusivity, budget creation and maintenance, and contingency planning

IAAPA Expo Asia offers education sessions led by industry leaders to help others grow their businesses, inspire industry professionals and advance their careers. Topics include sustainability, technology and innovation, and diversity. In addition to education sessions, EDUTours, networking events, and in-depth learning opportunities are available at an additional cost.

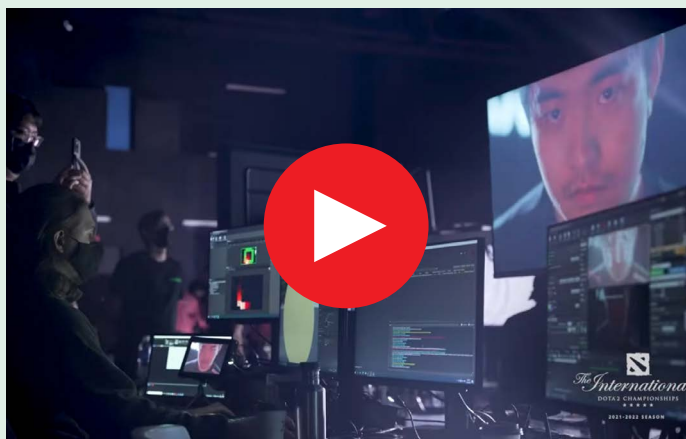
“The IAAPA team looks forward to welcoming attendees and exhibitors when we finally host IAAPA Expo Asia after a forced break,” said June Ko, executive director and vice president of IAAPA Asia Pacific. “The industry is ready to once again gather in the Asia Pacific region to showcase their greatest innovations, hear from leading experts, and build relationships during one of IAAPA’s signature events.”

Registration for the IAAPA Expo Asia is now open, and those who register before 10 June 2023 will enjoy a discount. More information about the Expo, including the complete schedule of education sessions and special events, as well as registration for their visit can be found by clicking the link below.

New for 2023 is the availability of credentials to qualified influencers who are interested in attending and covering IAAPA Expo Asia 2023 on select social media platforms.

[IAAPA Expo Asia](#)

## Behind the Scenes of the International Dota 2 Championships Final



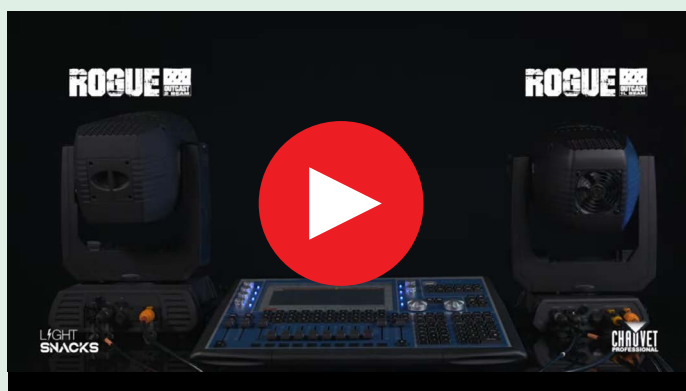
The opening commercial and teaser campaign was filmed on a virtual production set powered by Brompton Technology that was built by the Singapore-based system integration company Cgangs International Pte Ltd in collaboration with the game's creator, Valve.

## grandMA3 Version 1.9 Overview Tutorial



Daniel Kannenberg from MA Lighting takes viewers through some of the new improvements made to the grandMA3 software. This includes improvements to the data handling that allows users to filter by layers or show file segments.

## The Battle of LED vs Discharge Rages On



If the debate of whether LEDs or discharge lights are superior has ever bothered you, you're not alone. To help you make a well-informed choice, Mike Graham of CHAUVET Professionals gives all sides of the controversy along with demonstrations.

## Martin Audio Online Launch of FlexiPoint



Martin Audio anticipates 2023 to be its busiest year for the unveiling of new products. Dom Harter, managing director, reveals nine new products that have just been introduced from the company's brand-new headquarters in this special online launch event.



## The Argument for a Digital Microphone



I want to return to a topic I have been thinking about for a while, and I wanted to share some thoughts with you. This is about digital microphones, and I am not talking about anything that can connect to any of your USB ports since this is not necessarily considered a digital microphone. In 2001

the AES released the **AES-42** standard, which is still the base for any professional digital microphone. This was revised and revised and republished, but at the core of all this, it is still the same document and the same standard today in 2023.

This might sound boring and too technical, but please bear with me. Let's have a quick look at what AES-42 is. At the heart of this standard is still an AES-3 regular AES-EBU standard digital signal, so the actual audio signal data stream is a 24 Bit AES-3 signal. On top of this, the AES-42 carries some information and also control data in both ways. The microphone tells the interface which model, serial number, and polar pattern is selected and connected. The interface provides the specific Phantom Power of 10 V to the microphone. It will also send remote control data to the microphone to initiate changes you want done. Since all this is very well defined, thanks to the geniuses at the AES, one would expect this to be relatively easily implemented into new interfaces and products.

However, this has not been done at all, and people are talking less and less about this, although this bears so many different applications and represents such an improvement in the result and outcome of our work. In the 22 years since this standard was first published, I am only aware of four brands that offer digital microphones with AES-42 standard; they are all German microphone brands. They are NEUMANN, SENNHEISER, SCHOEPS and MICROTECH GEFELL. How come no other brand globally has picked this up yet?

Here is why this is so important and also so exciting. In any regular "normal" and non-digital setup, the typical signal chain consists of an analog microphone and a microphone preamplifier. The components in the signal chain define the overall possible dynamic and max SPL. In most cases, the preamplifier limits the dynamic range, and the microphone capsule element determines the max SPL. In this day and age, we are all using computer interfaces to record and process audio. Many of us are not even aware of the capabilities and limitations of those interfaces. We need to have a quick look at this. On the preamp side, the typical computer interface (Audio into USB digital) those interfaces do have a limited range setting. Its signal-to-noise performance is average at best, and sadly the signal-to-noise is not a constant but varies dramatically based on the preamplification setting. This, of course, is bad if you are not always operating at this sweet spot. Even with a multi-thousand USD dollar preamplifier, you will see variations in the signal-to-noise performance, just not to the extent the 100 USD to 500 USD interface will present you with.

Now, taking the limitation, which the external preamplifiers introduce, out of the equation by going digital in the microphone would be a dramatic win and improvement. Console manufacturers, who have historically always sold us on the sound of "their" preamplifier design, have picked this up fairly well, and the AES-42 standard is available in a wide range of products across the globe, and no one seriously offering broadcast-level products will NOT have an AES-42 interface in their offering. At this very moment, some 22 years after this standard was introduced first by the AES, if you want to use a digital microphone and connect it to an AES-42 interface, you are down to less than a handful of options on the microphone side, and no mixing console can help you with this. On the bright side, all of the available digital microphones are from serious contenders, so you are in with the best, to say the least, and I am not saying this at all because I am German. I strongly encourage you all to get acquainted a bit closer with the available options out there.

**Join the conversation and share your thoughts with Alex. Alex can be reached at [alex@asaudio.de](mailto:alex@asaudio.de)**

## ADJ 'Mini' Ellipsoidals Pack A Mighty Punch



ENCORE PROFILE  
MINI COLOR



ADJ has expanded its portfolio of theatrical lighting fixtures with the introduction of two new compact and versatile LED-powered ellipsoidal luminaires: the Encore Profile Mini Color and Encore Profile Mini WW. Both fixtures are designed to offer powerful lighting capabilities in a compact size, making them ideal for a wide range of applications where space is limited including small theatres, bar stages, museums, theme park attractions, art galleries, restaurants and shop window displays.

**The Encore Profile Mini WW** features a potent 40W warm white LED engine with a 50,000-hour average life expectancy and 3000K colour temperature. Its light is focused through precision-engineered optics to deliver a crystal-clear output with an even field and an extremely high CRI of >98. This makes it ideal for illuminating performers on stage as well as scenic elements, both in a theatrical setting and for other applications such as theme park attractions and retail displays. High CRI lighting ensures a realistic depiction of colour as well as enhanced depth, which means that all skin tones appear natural on stage and scenic elements look realistic.

**The Encore Profile Mini Color** features a versatile colour-mixing LED engine comprised of 16 x 3.5W RGBWAL (Red/Green/Blue/White/Amber/Lime) LEDs that also offer a 50,000-hour average life expectancy. By varying the intensity of the six LED types, an extremely wide colour palette can be achieved, ranging from vibrant and bold primaries to soft and subtle pastels. The LED engine can also generate white light with colour temperatures varying from 2700K up to 7000K and a good CRI of >86. In addition to full RGBWAL colour mixing, the fixture also features a dedicated Dynamic White DMX channel to

allow a simple selection of any desired colour temperature of white light.

Both models require the use of a lens, which is sold separately. Two lens options are launching with the fixtures that can be used to adapt their output depending on the beam angle required. Both lenses offer manual zoom, with the EP Mini Lens 15-30Z option offering a

variable beam angle of 15° - 30° and the EP Mini Lens 25-50Z version providing wider options of 25° - 50°. Both fixtures can also be used to project GOBO patterns and are each supplied with a holder for standard 'E' size GOBOs (GOBOs sold separately). An optional barn door accessory – EP MINI BDA (sold separately) – is also available, which can be easily and securely attached to the front of either lens.

Their LED light engines allow both models to offer digital dimming with variable curves and a selection of dimming modes as well as variable speed strobing. They also support adjustable refresh rates so that flicker can be eliminated for filming applications. A convenient OLED menu display on the rear panel provides access to an intuitive menu interface for DMX addressing and configuration of the unit's adjustable operating parameters. They are both also supplied with a variable angle hanging bracket that locks securely into place using a pair of large thumb-tightening screws.

Excluding the lens, each fixture weighs only 3.64 lbs. (1.65 kgs.) and measures just 6.03" x 5.67" x 10.75" / 153mm x 144mm x 273mm [L x W x H]. 5-pin DMX input and output sockets are located on the rear panel of both fixtures, as are power inlet and thru connections. The latter allows the power supply for multiple fixtures (up to 28 @ 120V or 57 @ 230V) to be daisy-chained from a single outlet. There is also a USB port provided on the side of both fixtures, which can be used to quickly and easily update the fixture's firmware if updates become available in the future.

ADJ



## RCF NX 9-SMA Series Engineered to Deliver Stellar Audio for Soloists, Bands, and DJs



The new NX 9 Series speakers possess a bi-amplified 2100 W electroacoustic design that produces impressive sound pressure levels with exceptional sound clarity. When utilised outdoors and over extended distances, the models' purpose-built transducers, sophisticated DSP processing, and a constant directivity waveguide work together to offer coherent coverage of the listening area with distortion-free sound. The RCF-exclusive FIRPHASE and Bass Motion Control algorithms included in the NX 9 Series are meticulously calibrated for each model and provide the utmost clarity for vocal reproduction as well as a deep, strong bass response.

The 2-channel NX 9 Class-D amplifier is 50% more powerful than previous models and can manage extreme sound pressure levels with an ultra-fast attack, realistic transient response, and very low heat loss. NX 9 is energy-efficient so there's no need for a cooling fan - the amplifier is attached to a solid aluminium heat exchanger in the rear of the cabinet - with no moving parts. The input circuit features a new low-distortion design with an advanced safety limiter, maintaining the true character of the input signal at all levels. All NX 9 amplifiers are designed according to EN62368-1 for maximum safety and present a Switch Mode Power Supply section joining high-efficiency with minimum weight.

The new 1.75" voice coil design with Polyimide-Kapton dome features a new bonding technology and reinforce-

ment ribs making it 10 times more rigid than previous models, for increased accuracy and durability. The redesigned phase plug increases sound clarity with less distortion. Low-frequency transducer design gains more stability over higher currents, with less distortion and better heat handling.

NX 9-SMA can operate as either the main system or as a floor monitor. The rugged all-wood cabinet is easy to carry, thanks to the ergonomic aluminium handle. The lower side includes a steel pole socket for mounting on a stand or a subwoofer pole. The speaker's cabinet is made of high-quality Baltic birch plywood with a special adhesive glueing every layer; this makes the box completely water resistant even before the special polyurea paint is applied, making it weatherproof and highly resistant to scratches and bumps.

The NX 9-SMA Series has been designed to listen to the requirements of sound providers to deliver high power and pristine sound from a compact and portable speaker, with an integrated amplifier on board. From the wood cabinet to the final texture and the rugged protective grille, the NX 9-SMA Series offers maximum strength for intensive use on the road and can be used for fixed installation.

**RCF Audio/NX 9-SMA**

## LD Systems Strengthens MAUI Series with Amplified MAUI G3 Models



With the third MAUI generation, LD Systems is offering DJs, singer-songwriters and small bands a sophisticated concept of sound, design, technology, and handling within a compact column PA system. The new MAUI G3 Series includes the MAUI 11 G3 and MAUI 28 G3 models and is equally suitable for mobile use on live stages and in clubs, as well as for weddings and corporate events.

With the MAUI G3 Series, LD Systems has retained the strengths of the MAUI: the MAUI 11 G3 and MAUI 28 G3 also offer a convincing full-range sound with plenty of bass and headroom and can be transported quickly and easily to any event. At the same time, LD Systems has given the new models more amplifier power, as well as numerous acoustic improvements that raise the sound and dispersion behaviour of the MAUI G3 Series to a new level.

The MAUI G3 Series is based on a completely revised subwoofer concept with four bass reflex ports and an enlarged speaker chassis that incorporates the integrated amplifier. With a total output of 1,030 W RMS (2,060 W peak) for the MAUI 28 G3 and 730 W RMS (1,460 W peak) for the MAUI 11 G3, these column PA systems deliver big, powerful and precise sound in any application – whether being used as a main PA for gigs, as a sound system for mobile DJs, or as a sound reinforcement system in the hands of event technicians at weddings, corporate parties and other events.

Equipped with a 12" woofer (MAUI 28 G3) or two 8" woofers (MAUI 11 G3) and the latest DynX DSP generation, the subwoofer enables extended and distortion-free reproduction even at maximum volume down to 37 Hz (MAUI 28 G3) or 39 Hz (MAUI 11 G3). When using a second subwoofer, the bass range can be operated in cardioid configuration at the touch of a button (preset).

The two aluminium column elements are designed as cardioid speakers and provide controlled low-mids to the front and up to 18 dB of attenuation to the rear. With 12 (MAUI 28 G3) or 6 (MAUI 11 G3) 3.5" centre drivers, the phase plugs placed in front, and the two 1" tweeters, the MAUI G3 models provide even sound distribution with constant horizontal dispersion (120° x 30°). In addition, the BEM-optimised waveguide in front of the tweeters transports the high frequencies to the back of the room.

Thanks to Bluetooth 5.0 and AAC coding, the MAUI G3 becomes a versatile sound system for wireless playback of background music, backing tracks, and other content. Transport is easy, while the improved, invisible connectors between the elements ensure increased stability during set-up.

[LD Systems/MAUI G3](#)



## Versatile Control and Flexibility Provided by New TASCAM SB-16D Dante Enabled Stage Box



TASCAM's SB-16D 16-in/16-out Dante Enabled Stage Box offers all the advantages of Dante networking, combined with seamless integration with the new TASCAM Sonicview Digital recording and mixing Consoles. Controllable with the TASCAM IO Control app or via the new Sonicview consoles, the SB-16D can be used as a floor stage box or rack mounted, and multiple stage boxes can be used simultaneously in a Dante network. The new SB-16D offers a full complement of I/O with the features audio professionals demand while easily accommodating large ensembles and extensively installed Dante systems using the SB-16D's 16 XLR mic/line inputs and 16 XLR line outputs. If more I/O capacity is required, multiple SB-16D stage boxes can be networked. Each input channel has +48V phantom power and a SIG OL LED for input-level monitoring. Additionally, each line output is equipped with SIG OL LEDs.

Two Dante ports equipped with etherCON-compatible Dante connectors enable redundant streams with robust connections. For additional system reliability, a DC power input is provided that allows a redundant power supply (not included).

As available in the TASCAM Sonicview recording mixers, each SB-16D microphone input feeds a TASCAM Class 1 HDIA (High-Definition Instrumentation Architecture) mic preamp—the finest mic preamp TASCAM has ever made. Thanks to an instrumentation amplifier with exceptional noise characteristics in the first stage, Class 1 HDIA microphone preamps are extremely quiet achiev-

ing a -128 dBu EIN, a high signal-to-noise and distortion ratio, and excellent frequency response. The mic inputs can accept up to +32 dBu signals—providing plenty of headroom for sudden level increases.

As with TASCAM Sonicview recording mixers, the SB-16D uses 32-bit analogue-to-digital converters and a 96 kHz sampling frequency. When an SB-16D stage box is connected to a TASCAM Sonicview 16XP or 24XP recording mixer, microphone gain can be remotely controlled from the mixing console, and all SB-16D I/O comes up on the TASCAM Sonicview VIEW touch screens for hassle-free ease of use. In addition, the SB-16D is equipped with 8-in/8-out GPIOs, which expand to 16-in/16-out GPIOs when connected to a TASCAM Sonicview recording mixer, facilitating parallel control.

In addition to its tight system integration with the TASCAM Sonicview consoles, the new SB-16D can also be controlled via the TASCAM IO Control Remote Control App. Available for macOS, Windows, and iPadOS, users have complete control—regardless of whether the SB-16D is onstage, backstage, in a control room, or an equipment closet. With TASCAM IO Control, users are always in full control.

With its ability to be deployed for either floor or rack applications, the SB-16D offers versatility. Whether a networked floor box for stage use is preferred, or rack-mounted inputs for recording and broadcast studios as well as commercial installations, the SB-16D provides flexibility. It can be 3U rack-mounted with the included brackets, which offer two angle options. Mount the jack panel on the front of the rack and take advantage of the SB-16D's cable hole to conveniently and safely route connected cables in the back.

Large rubber feet maintain stability, even with cables connected, when the SB-16D is used as a floor box. Multiple stage boxes can be stacked for ease of transportation and stability during installation. A handle makes the SB-16D easy to carry.

**TASCAM/SB-16D**

## Next-Gen Intelligent QSC L Class Loudspeakers Enhanced with free QSC SysNav App



For applications ranging from straightforward, portable, plug-and-play setups to demanding, networked, high-tech AV productions and fixed installations, QSC has introduced the L Class, next-generation advanced, intelligent, and active loudspeakers.

L Class delivers its performance and audio experience via high-output amplification, state-of-the-art DSP, premium components, extensive system intelligence and an elegantly intuitive user interface. L Class is also aiming to set a new standard of ease, as its users will be able to confidently configure and deploy any L Class system with speed and reliability. Onboard Dante connects L Class to networked AV systems and connected stages.

Developed with sound quality and expandability in mind, the new LA108 (two-way, 8") and LA112 (two-way, 12") active line array loudspeakers are complemented by the LS118 (single 18") active subwoofer, each offering a brilliant combination of leading-edge innovation and ease of use.

Technical innovations abound in the LA108 and LA112, including the proprietary QSC LEAF (Length-Equalized Acoustic Flare) waveguide, the ergonomically designed, single-operator QSC RapidDeploy rigging system, and QSC AWARE (Automatic Wireless Array Recognition) system intelligence, which also provides one-button single box or full array intelligence and optimization.

The LS118 active subwoofer's on-board DSP further optimizes and protects system performance while also offering advanced capabilities such as the ability to array two units in a cardioid arrangement, maximizing low-frequency output in front while minimizing unwanted energy around the sides and rear of the system. DEEP mode provides additional low-frequency extension and driver excursion processing. All models feature QSC Acoustic Linear Phase (ALP) design, allowing cohesive phase response when deployed with other QSC loudspeakers in a given environment.

Both line array loudspeakers can be deployed using dedicated array frames, ground-stacked (array frame combined with optional sub-stack adapter) or mounted in one of two pole cups using loudspeaker stands or poles of various lengths. The LS118 can be deployed in both horizontal and vertical orientations in a ground-stack configuration or using one of its two pole receptacles.

All three models feature daisy-chain connections for analogue and digital audio as well as AC power (PowerCON TRUE1) and are backed by a global Six-Year Extended Warranty, with product registration.

The QSC SysNav (System Navigator) App for Windows and iPadOS further enhances the L Class user experience, providing the ability to easily design, configure, control, monitor and apply signal processing to individual loudspeakers, full arrays or groupings of both. Additionally, the AIM (Array Installation Modeling) prediction tool lets the user visualize array coverage by positioning virtual loudspeakers and arrays in a scaled, graphical model of a venue or installation space.

### QSC/L Class



## New Functionalities Optimize grandMA3 Software Programming Workflow



MA Lighting has released the grandMA3 software version 1.9. This software release presents massive workflow improvements and new functionalities in the following areas:

- New SpeedMaster layer for phasers
- Actions in pools
- Selection Grid tool in 3D
- Notes
- Relative XYZ
- Break in cues
- CMY colour readout
- Improved show file handling

The encoder bar was cleaned up with better graphical elements added along with more information for the user leading to an enhanced programming experience. Version 1.9 also enhances optimization in network and multi-user environments.

The grandMA3 software is the soul of the grandMA3 platform and is designed to meet current and future lighting control requirements. You can find the complete list of features and enhancements along with video tutorials by clicking on the link below.

[MA Lighting/grandMA3 V1.9](#)



*grandMA3 full-size*

## FlexPoint Series Completes Trio of Premium Loudspeaker Categories for Martin Audio



With acoustic design and technical innovations at its core, the Martin Audio FlexPoint series is looking to set a new benchmark in performance and versatility for compact, standalone loudspeakers.

FlexPoint systems deliver quality sound to match the expectations of prestige venues and top-flight touring artists, while their passive two-way configuration heeds the need to reduce running costs and amplifier count. Comprising five models—all with highly flexible deployment—the FlexPoint series covers a vast range of professional applications, from live sound reinforcement, theatre sound and corporate AV to distributed sound systems and immersive environments.

From the miniature FP4 to the powerful FP15, FlexPoint loudspeakers are compact and discreet — providing clarity, detail and coverage at all sound levels without affecting sight lines or detracting from venue architecture.

Coaxial point source technology lies at the heart of FlexPoint systems, delivering smoother and more consistent response off-axis than traditional two-way systems. But Martin Audio has gone further with exemplary dispersion patterns by incorporating a two-stage waveguide within the magnet structure. This waveguide maintains wide constant horizontal coverage out to very high frequencies, while the perimeter of the cone acts as the horn mouth, enabling pattern control to

a lower frequency. Drivers can also be rotated without the need for any tools increasing their deployment options and ease of use out on the road.

FlexPoint Systems can be used in conjunction with SX series subwoofers to extend low-frequency performance and impact, and it was this range that also saw two new additions announced. The SX115 is a single 15" subwoofer and the SX215 is a double 15" subwoofer, both models allowing for pole-mounting of a FlexPoint system. This now means that the SX series comprises a single and double 10", 12", 15" and 18" as well as a cardioid 15" and 18" and the ultimate subwoofer performance of the Hybrid® horn/reflex loaded SXH218.

Finally, in keeping with the name, FlexPoint systems support a flexible electronics package. For optimum sound performance, Martin Audio iKON amplifiers with onboard DSP are recommended. However, and primarily for larger installations, Martin Audio VIA amplifiers in conjunction with a DX4.0 system controller are compatible. Then, for smaller installations utilising FP4, FP6, and FP8, a combination of VIA amplifiers and the newly announced DX0.4 or DX0.6 controller are a cost-effective option. The DX0.4 is a 2-input, 4-output controller, while the DX0.6 is a 2-input, 6-output.

All nine products will start shipping no later than June, but some products will be available earlier.

[Martin Audio/FlexPoint](#)



## L-Acoustics Companion LA-RAK III Offers More Than 60,000W of Power in 9U Package



In 2022, L-Acoustics encouraged users to “amplify differently,” unveiling the new LA7.16i amplified controller. Now, L-Acoustics has launched its road-ready counterpart, the LA7.16 amplified controller for live productions.

The LA7.16 amplified controller offers flexibility that can meet real-time power needs while offering a level of efficiency and sustainability unheard of in modern touring applications. The high-density format—16x16 architecture in a 2U format—powers more line array speakers than any similar-size amplifier, meaning fewer racks on tour, which in turn translates directly to energy and time savings along with the ability to address multichannel and hybrid productions, while offering a level of efficiency and sustainability required in modern touring applications. The high-density format saves space, weight, and time in deployment.

LA7.16 responds to the amplification needs of L Series, whose L2 and L2D elements contain 20 drivers and require 16 high-power amplifier channels and 16 state-of-the-art DSP channels. LA7.16 boasts a touch screen and an encoder wheel to rapidly set up initial parameters

and a single SC32 connector on the rear for connecting loudspeakers. Using new connection accessories, LA7.16 powers any L-Acoustics line source array up to K2.

The new [LA-RAK III touring rack](#) houses 3 x LA7.16 amplified controllers boasting 48 amplification channels and 48 individual DSP channels totalling more than 60,000W of peak power in a 9U rack, with two LS10 switches to support MILAN AVB seamless redundancy.

Current amplifier technology is dimensioned to power all channels simultaneously over extended periods. However, in real-world applications, this kind of demand is rare. The LA7.16 amplified controller technology delivers power more efficiently and uses energy more effectively.

LA7.16 uses L-SMART, a suite of advanced power management technologies that allows designers to mix and match any L-Acoustics loudspeaker onto one amplifier. L-SMART uses proprietary predictive modelling algorithms to manage the power supply unit (PSU) and the individual amplification channels. Hardware sensors within the amplifier supply real-time information, which is analyzed by the DSP to dynamically match the loudspeaker system's needs. The PSU then provides extremely high short-term peak power, or lower power over longer hold times. This energy is delivered intelligently to the advanced Class-D output stages, assuring optimum system performance at all times. LA7.16 can drive any L-Acoustics loudspeakers up to K2, enabling high-resolution amplification and processing of large-format speakers with less system budget.

[L-Acoustics/LA7.16](#)

# LPS laser systems Germany

*LPS celebrates 30 years in business. Martina and Siggi Ruff reflect on the early beginnings, the highs and lows of expansion to trading globally in the late 1990s in the live entertainment market.*



*Siggi and Martina Ruff.*

In 1993 LPS was founded by Siggi Ruff. From the very beginning, the company has been producing in Germany. "In doing so, we also incorporate customer wishes that our customers appreciate and often lead us to further ideas and developments. Most of our suppliers are located in our region, which enables good communication and shorter delivery routes," said Siggi.

"When Martina joined in 1995, she brought a lot of ideas on how to make LPS better known," said Siggi Ruff. She boosted the international market in sales, which was followed by first export transactions to France, Czech Republic, Austria, Greece and Switzerland. "I still have to smile about our secret recipe for success. If one of us has an idea, the other is skeptical at first, and vice versa. Ultimately, however, we complement each other so well that it usually leads to success," said Martina.

With the first sale to Asia in 1998, LPS took the first steps toward global trade. In the following year, further sales followed in South America. "This is certainly one of the most important watershed moments, as our market share increased within a very short time and we were no longer dependent solely on the German market," said Martina.

But in 2005, technical progress almost put LPS out of business. "The demand for air-cooled DPSS lasers

soared, and we initially hesitated to develop this. We still relied on gas lasers with 5-20 W white light. But overnight, all customers wanted this new laser technology," said Siggi. "Since we could not offer them at that time, there was a huge decline in orders and we were only a blink away from shutting down the business."

"It was only because of the huge energy of our team, we all worked at full speed on a new development that finally lead us to a completely new laser system - the LPS-BaX."

"That was like a push button and our show lasers were used for fantastic laser productions by our customers, for example in combination with water fountains, as highlights at stage and television productions, festivals, concerts, galas, New Year's Eves and performances by various stars, in addition to sophisticated product presentations by well-known companies and multimedia concepts for government projects," he said.

"To give a little taste, we would like to mention some installation highlights such as: Seaworld in Texas; Kangwon Land in South Korea; Typhoon Theater in Singapore; GGE in Dubai; Black Sea Arena in Georgia; Baluan Sholak Sport and Culture Palace in Kazakhstan; EPM in Colombia; Daegu Susung Lake in South Korea; International Conference Center in China; Rustavi Theater in Georgia; Zhulian in Thailand and Malaysia; Porto Cairo Mall in Egypt and the Gorakhnath Temple in Gorakhpur in India. A wide variety of venues all with LPS lasers utilized to enhance the space and excite attendees," Said Martina.

Today, Martina and Siggi Ruff can proudly look back on the past 30 years, because LPS is represented all over the world. "Well, if you don't buy an existing company or inherit it, you probably start like me," said Siggi "with an idea and as a classic one-man-show."

"The fact that we have been able to position ourselves so stably and broadly on a global level over the last few





*Gorakhnath Temple in Gorakhpur India featuring LPS lasers.*

decades is certainly also due to the good fortune of being able to work with open-minded and professional people – and by that we mean our employees as well as our customers,” mentioned Martina.

Recently LPS adapted their product range to market requirements, with the LPS-BaX series being a perennial favourite among customers as it offers a compact laser show system in different power and colour spectrums. “Also with our LPS-BaX Beam Bar Pro and LPS-BaX SixSCAN series we are very successful. Professional lighting designers use them for their creative staging, that’s very impressive too,” said Sigg.

For a number of years LPS have exhibited at international trade shows, example, in France, Switzerland, Austria, Belgium, Czech Republic, Russia, China, India, Singapore, Dubai, South Africa, Mexico, U.S.A., Greece, Italy, Ireland, and Lebanon.

“Previously exhibiting at trade shows was positive, and we always looked forward to all the different people that you can meet in one place. But over the years, we have clearly felt that existing and new customers enjoy coming to us and visit our showroom. We quickly recognized this advantage. Today, we still visit trade

shows to meet some people face-to-face, but no longer as exhibitor. Our 250 sqm showroom at our headquarter in Ofterdingen is the centerpiece for personalized demonstration,” said Sigg. “Here we can program many things in advance or simulate a laser show, and for many customers, a visit to our showroom is a real experience, because they are not only offered different laser shows, they can also take a look inside the show lasers, which has also the US Variance. This personal contact, which is possible without restriction and distraction, has a positive effect on the satisfaction of our customers and thus on our turnover.”

Flexibility has been a cornerstone of the LPS business plan for many years, as Martina explains, “We have very versatile products and we are active in a wide variety of fields. From the classic laser show and multimedia events to special customer requests – everything is available. And that is what reminds us that we work within a medium that inspires us every day.”

“Even after 30 years, we still have big plans for LPS laser systems,” explains Sigg. “We are still passionate about lasers.”

#### **LPS laser systems**

# IAAPA Expo Asia 2023: Growing in Confidence into the Future



The global attractions industry's premier event returns to Asia on 13-16 June 2023.

The excitement is building, and all sights are set at Marina Bay Sands in Singapore as IAAPA Expo Asia returns for the first time since 2019. Through timely education sessions, over 6,500 square meters of trade show floor, and unforgettable special events, IAAPA Expo Asia is the destination for cutting-edge technology and innovative business practices that set your business up for the future.

Highlights from this year's IAAPA Expo Asia includes:

- Leadership Breakfast with keynote speaker Tom Mehrmann, President, Chief Operating Officer, Universal Destinations & Experiences, Pacific Rim
- Opening Reception at Universal Studios Singapore

- CEO Talk
  - EDUTour of the Jewel Changi Airport
  - Educational sessions focused on inclusivity, budget creation and maintenance, and contingency planning
- SI Asia chats with **June Ko, executive director and vice president, IAAPA Asia Pacific operations** about growth opportunities and embracing of technologies.

**What is the status of the Theme Park and attractions industry in APAC? Is it growing? maybe trends can be shared? where are the opportunities?**

India is a strong market with a huge population that will surpass China soon. The growing middle class and surrounding countries have expanded opportunities for growth in this location. We see countries in Asia Pacific



**June Ko**  
**Executive Director**  
**and Vice President,**  
**IAAPA Asia Pacific**  
**operations**

### **How is technology changing the attractions industry or the experience?**

Technology continues to be one of the most important elements of our industry and the guest experience. I think the changes are for the better and allows us to have obtain more information on guest patterns, manage operational needs, and learn the behavior of everyone we interact with from around the world.

### **With the increasing diversification and personalization of the cultural and tourism market, as well as the application of new products and technologies in consumer scenarios, do you think that technologies like artificial intelligence and big data will bring new changes to the cultural and tourism, and theme entertainment industries?**

I think the industry has always relied on data to help shape its future and growth plans. However, I think we're going to see an even greater shift into artificial intelligence as it positively enhances the space we work in without adding too much in terms of human capital and staffing needs. The pandemic showed there's room for more technology in our industry and we've already seen the beginning of that growth.

that are very diverse in culture and language, which can be an exciting opportunity for us. If we better understand that needs of each location through the use of data and technology, we will be more equipped to create the growth that is awaiting our industry.

### **What lessons can the attraction industry learn from COVID-19 so as to be better prepared?**

One of the biggest lessons learned, in my opinion, is that we truly are in this together. One of the strongest parts of IAAPA is our global reach and how we can learn from each other when we get candid in our conversations and honest about our struggles. Navigating COVID-19 together means we have directly faced our weakest operation points together and are beginning to see the other side of those.

### **Why should one attend IAAPA Asia Expo?**

IAAPA Expo Asia is a one-stop event to meet like-minded industry leaders, learn the latest innovations planned for the attractions industry, and hear from seasoned veterans in a way you would not be able to in any other environment. The IAAPA team has curated the latest topics of industry, designed behind-the-scenes opportunities, and built a program designed to improve your operations and expand your skill set. You cannot find anything like this experience elsewhere in our region.

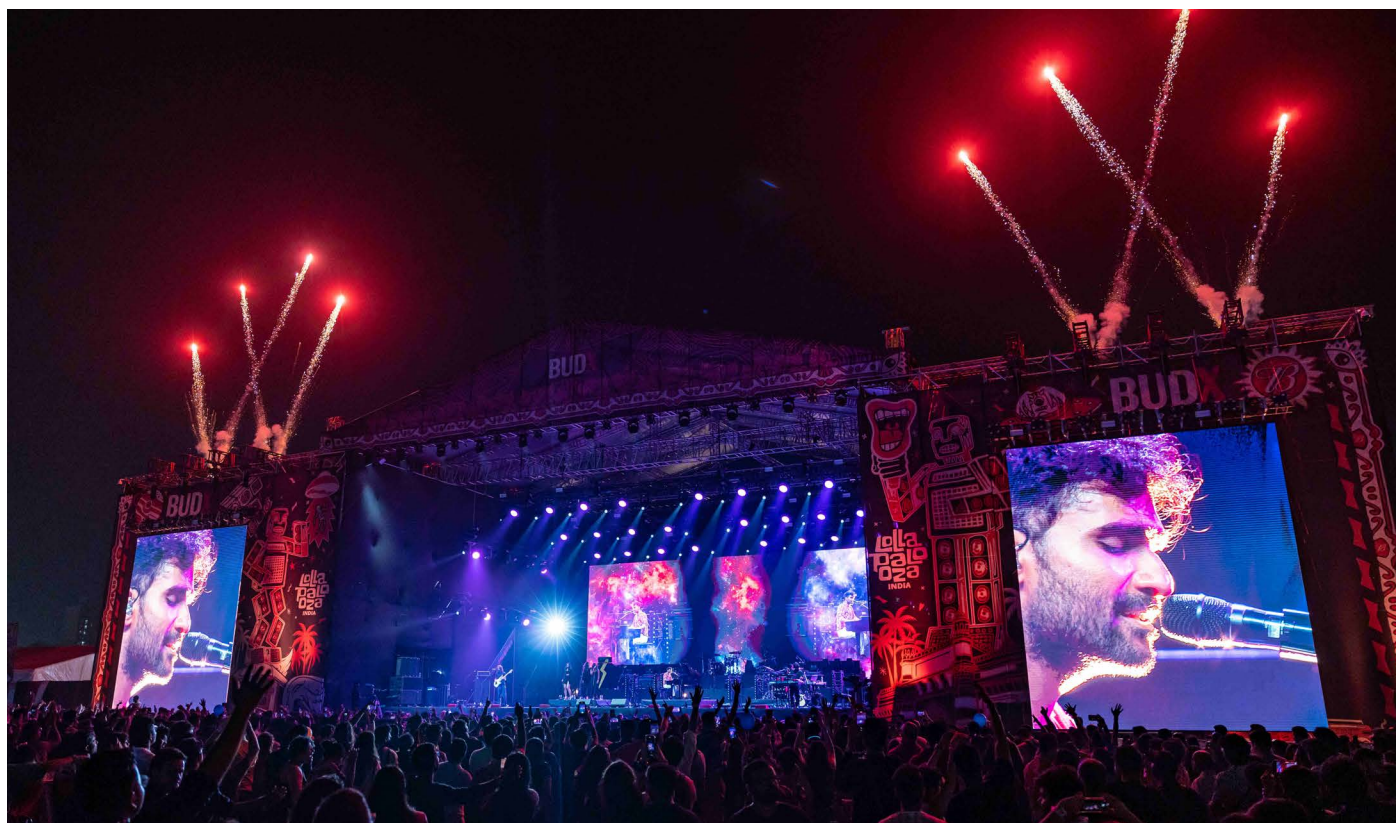
More Show Information: [IAAPA Expo Asia](#)



*Education programme at IAAPA.*



# Exploring the New & Dynamic Landscape of India's Live Event Industry



*Lollapalooza Festival which took place in India recently, drew in over 60,000 fans from all over the country and created history by becoming the biggest multi-genre festival to be hosted in Asia.*

According to reputed sources, the event industry during the FY 2019- 2020 was valued at a little over ₹10,000 crore, with the analysis largely covering only the organized segment i.e. events hosted by corporate organizations, award functions, concerts, and the likes. However, if one were to include the un-organized segments of the industry (weddings, ceremonies, private gigs etc.), the figure could've easily touched numbers as high as ₹5 trillion. Moreover, reports back then suggested that the industry in total was poised for a steady year-on-year growth rate of 12 to 15%.

Then came the year 2020 which pretty much changed the entire dynamic of life as we knew it, and forced stakeholders of the event industry to adapt to "new normals" such as virtual events and everything digital – all in a valiant attempt to stay relevant and sustain.

The year 2021, on the other hand, ushered in new rays of hope; with the relaxation of social distancing norms across several states allowing the live event industry to mount a comeback and get into a groove of sorts. In fact, the EY-FICCI report titled 'Tuning into consumer - Indian M&E rebounds with a customer-centric approach' released in early 2022, noted that the Indian Media and Entertainment (M&E) sector grew 16.4% INR1.61 trillion (US\$21.5 billion) in 2021, while assuming an expected growth of approximately 17% in 2022. These observations, of course, were based on data accrued across segments such as advertising, digital entertainment, television, radio and more; wherein it was noted that the live event segment grew 20% over an extremely depleted base in 2021; with revenue figures of 2021 amounting to just over 40% of what was noted in 2019. The same report, however, suggested that live

events industry would continue to grow at a steady rate and surpass the revenue highs of 2019 by the year 2024.

2022 was a year of great delight for the live event market in India, as this proved to be the year that witnessed a steady flow of events all year round. Many industry stakeholders noted that there wasn't really an "off-season" (which in years prior to 2020 was typically observed between the months of June to early September), with many dubbing this as the year of "Revenge Events". Revenge events basically alludes to basic instinct for retribution that is ingrained in the human spirit; which in this case could be looked at as the audience's overwhelming desire to 'reclaim' all the missed opportunities of getting-together and celebrating in 2020-2021.

Anil Makhija, chief operating officer, live entertainment and venues, BookMyShow, was quoted in a reputed media outlet, explaining "We've witnessed a tremendous surge in audience uptake for live entertainment as a result of massive pent-up consumer demand that played out after the waning of the first, second and third waves of the pandemic. This has translated into significantly huge conversions on transactions across categories such as sports, comedy, music, plays and more, further reinforcing the appetite for live entertainment in our country. Having lived through this time of depravity during the pandemic, performers and artists too are seeking more avenues, platforms and opportunities to entertain audiences, creating plenty of options for consumers to choose from,"

A few detailed industry audits revealed that corporate events, weddings, government events and launches, besides ticketed events like concerts etc witnessed tremendous upswing in 2022; with large-scale events that hosted audiences in excess of 20,000 being noted to have done much better in terms of traction, turnout and of course, sheer business.

A report released by BookMyShow titled "Best of 2022" suggests that over 19000 live events took place in 2022 alone, with over 8 million Indian audiences stepping out for on-ground live entertainment – of which, no less than 600,000 people purchased a solo ticket for live events. The data was collated nationwide from

January 1st 2022 to December 5th 2022, and noted commendable numbers coming in from tier-two and three cities. Unsurprisingly enough though, the trend was led by Mumbai; and the most popular live events spanned the likes of Diljit Dosanjh's music concert to the Indian Premier League to music festivals like Sunburn and event stand-up comedy special tours like the ones headlined by famous comedian Vir Das.

On the other hand, reputed event ticketing platform Paytm Insider shared that, transactions from key cities like Mumbai, Delhi, Bengaluru, Hyderabad, Goa and Pune and others in 2022 grew by over 30% on the platform when compared to pre-covid times, while overall transactions across other cities grew by approximately 132% compared to 2021.

Enter 2023, and the momentum appears to be on the upswing, with India's live events sector witnessing a meteoric surge in ticketed events being organized within the entertainment space. And based on the current trajectory, industry insiders and experts believe that the live event market is poised to grow at an unprecedented rate of 25 – 30% in the current year.

Needless to say, this upturn has, and continues to be driven by several new trends that have emerged within the operational space of live events over the past two years or so. To begin with, there's been a notable change in the outlook and approach adopted towards the planning, pre-production, production and technical reinforcement aspects; with a strong emphasis now on offering wholesome experiences to audiences – irrespective of whether it's a music festival or concert, or even a corporate event or a wedding ceremony. At the same time, reliable sources confirm that events these days in general do sport a more detailed level of planning, with many instances noting the active involvement of the clients themselves from the earliest stages of bringing an event to life.

In tow with the aforementioned points, there are a few other key factors that have played an instrumental role in the resurgence and growth of live events in India.

## New Event Trends – Application And Scale

With weddings holding a place of great regard and repute within Indian culture; and the pandemic delaying several wedding ceremonies and celebrations (many of which were planned since the start of 2019), it comes as no surprise that the wedding segment was the first to hit the ground running as soon as the event industry re-opened for business post the pandemic. The momentum, once built, has only climbed upwards, as the wedding segment in 2023 has asserted itself as the leading growth driver for live events in India. For context, reports suggest that in the last two months of 2022 alone, an estimated USD 46 billion (3.75 lakh crore INR) was spent on weddings; with a specialised institution claiming that the figure will easily cross over USD 150 billion (13 lakh crore INR) by the end of June 2023.

Another crucial segment that has really stepped on the accelerator is the corporate events & MICE (Meetings, Incentives, Conferences & Exhibitions). With India steadily growing its influence within the world economic market as a strong buying audience as well as a formidable manufacturing base – brands and businesses from across the globe have sought to make their presence felt within the country. Experts note that the last few months of 2022 saw an approximate of 3 to 4 exhibitions being hosted every week in India. On the other hand, the number of activations, product launches, conferences, seminars, award functions and the likes in 2023 alone have witnessed a staggering growth of 12 – 15%, which is markedly higher than the values recorded in 2022 which stood at an encouraging 7 – 9%.

Political events and events backed by the government (both state and central) have been another key contributor to the sustenance and growth of the event industry over the past 2 years, with events centred around awareness, welfare, social activism and more being key drivers. In fact, the large and medium scale political rallies that took place in late 2020 and early 2021 across various states in the country have been attributed as being a crucial source of income and sustenance for the event management, production and technical production crews that were responsible for their successful commissioning.

Last but not the least of course is the live entertainment domain, which in 2022-2023 has clearly sky-rocketed in terms of demand as well as supply. For example, the world-famous Lollapalooza Festival which took place in India recently, drew in over 60,000 fans from all over the country and created history by becoming the biggest multi-genre festival to be hosted in Asia. That apart - world-class internationally renowned artists and performers from India and abroad had a packed schedule of events all over the country, with fan favourites like Martin Garrix, Arijit Singh, Badshah, Darshan Raval, Prateek Kuhaad, King and many more commissioning elaborate multi-city tours, much to the delight of their fans.

One thing that all of the aforementioned live event applications share in common in 2023 is their penchant for grandiose productions – with almost every event looking to pull off more intricate, detailed and larger-than-life experiences for their target audience.



**Anil Balakrishna – business partner and technical head of Bangalore based Graflex Inc,**

who are widely regarded as one of India's leading solutions providers for advanced AV and trussing rental services – made key observations to this fact as he stated, “Over the past year or

so with the markets opening up steadily, live events have come back with vengeance. In fact, we've noticed events being organised over 2-3 folds more than pre pandemic times; which of course is great for all of us. One thing that must be noted though – following the pandemic, the scale of events have gotten really BIG! Technical setups have become more complex and the need for good, qualified technical crew is more now than ever before (which is why we have begun training our tech crews in the latest technologies and in safety norms). Just to give you an example, before the pandemic struck, the usage of a 1010mm truss was limited to once or twice a month and that too very specifically for large outdoor concerts only. Now-a-days though, we've personally been deploying these mammoth trussing systems for a lot of corporate events and weddings; all because the production elements and designs have gotten bigger



and more complex. Every event wants to deliver most awe-inspiring and unique experience possible; and the sheer magnitude of events in general has increased a great deal.”

## New Event Trends – Production Design & Role Of Technology

The quest for delivering bespoke on-ground live event experiences has enlightened event producers, production designers and technical personnel with crucial learnings about scale and concept, and the multitude of combinations of how these two aspects interact. Simply put – working with larger scales is no longer enough to truly drive home the ‘wow’ factor. Rather, event professionals have had to work collaboratively in literally thinking out-of-the-box to conjure novel, never-before seen concepts. When put together expertly, these often culminate into a wholesome spectacle. And in the past 2 years or so, India has played host to several such live event extravaganzas. In fact, applications across the board have subscribed to this new school of thought, with all kinds of events – weddings, corporate events, live music and everything in between – putting their best foot forward in an effort to create experiences that are not just impactful, but remain ingrained in the audiences’ mind for years to come.



*Mercedes-Benz EQS luxury sedan launch by Natura.*

Take for example the launch of the brand new EQS luxury electric sedan from Mercedes-Benz that took place at the Jio World Convention Centre in Mumbai.

The event was reinforced superbly with lavish high-performance ultra-high resolution LED screens that pretty much lined the entire venue, coupled with highly detailed projection mapping and a sleek and powerful sound reinforcement – all of which came together beautifully to offer a truly immersive experience. The ‘wow’ factor, however, was in the reveal of the car itself. The production and technical teams decided to do something that was never tried before – have the car literally suspended in air. The visual spectacle was expertly designed and commissioned by Natura (Natura Outdoor Education & Training Solutions) – widely recognized as the leading solutions provider in India for aerial rigging, flying fx and aerial acts.

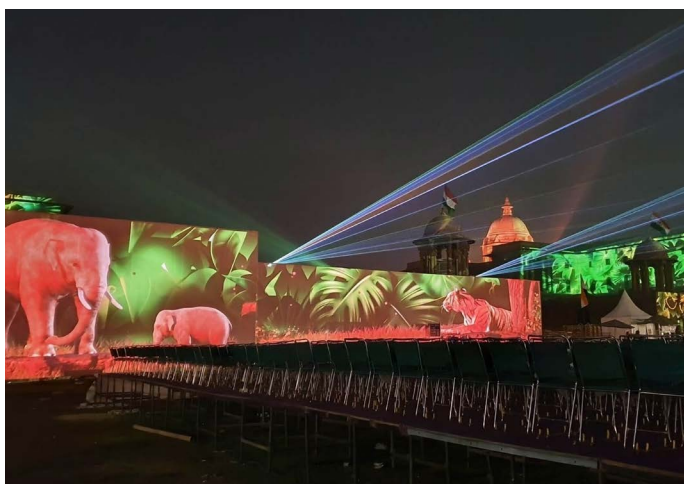


**Avishkar Tendle, founder director of Natura,** speaks

about the event saying, “First we needed to do a full mock setup in our studio to test our working theory and make sure that we have a method statement for it so that when we came to

the actual venue, we knew exactly what we were doing. We made sure that our load cells measured the loads accurately and distributed it evenly among the truss and all the rigging points that were provided by the venue. In terms of challenges, most of them were cleared off right in the mock setup itself; so, it became really smooth to get into the Jio World Convention Centre and just execute it step-by-step exactly as was determined by our method statement.” On a side note, Avishkar points out to the fact that his company was also involved in co-creating (designing and rigging) the centre-piece at the MoveOS2 EndICEage event that took place at the Ola Electric Futurefactory in Tamil Nadu; and the team have continued to stay busy all through 2022 and 2023 by providing superlative aerial fx and aerial acts for many different corporate events and HNI (high network individuals) wedding ceremonies across the country.

On the other hand, live events driven by government too seemed to have upped the ante in terms of creating wholesome experiences for the audiences. For example, Delhi-based Modern Stage Services – one of the country’s most reputed comprehensive rental service providers in the country – commissioned a first-of-its-



*'Beating Retreat' by Modern Stage Services used 14 PIXERA systems.*

kind 3D projection mapping extravaganza – synced with a drone show – for the 'Beating Retreat' event that took place in Delhi, which marked the formal end of the country's Republic Day celebrations. A total of 14 PIXERA systems, including one PIXERA Director licence, bolstered the Beating Retreat set-up that included 61 units of Christie 20k-lumen laser projectors, a further 8 units of 40W RGB laser projectors, and lighting comprising 96 moving heads and 180 LED PAR lights. AV Stumpfl's powerful PIXERA media server platform was on the front lines for Beating Retreat 2023 which featured a 3D anamorphic projection mapped onto the facade of New Delhi's Secretariat Buildings. The ceremony also included a drone show, featuring 3,500 drones, in sync with the projection mapping, as well as military parades and performances of Indian classical music by the bands of the armed forces and state police.



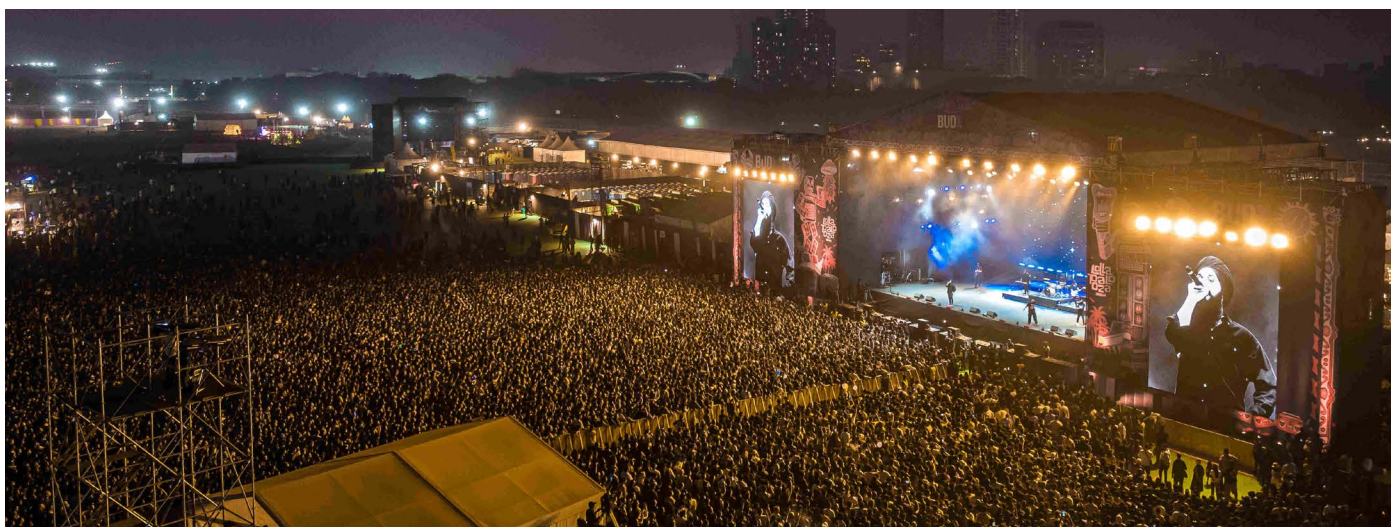
*In celebration of the G20 Infrastructure Working Group Summit in March 2023, India's biggest outdoor holographic screen projection was set up at Vishakhapatnam in Andhra Pradesh.*

That being said, undoubtedly one of the most prominent events to take place in 2023 is the G20 Leaders' Summit, being held for the first time in Delhi and including stakeholders in tourism from all G20 countries, financial institutions, state tourism departments and representatives of various governments. The city of Vishakhapatnam in Andhra Pradesh played host to the G20 Infrastructure Working Group Summit in March 2023, and in celebration of this monumental moment, the city also stood witness to India's biggest outdoor holographic screen projection. Perched atop the hill by the coastline of Vishakhapatnam, the massive outdoor holographic screen projection was commissioned by renowned rental solutions provider Purple Vector, in association with Toadlabs Technologies – a reputed company known for creating 2D/3D animations, VFX and motion graphics; and with key support from Delhi based comprehensive visual solutions provider Hertz & Pixelz. The spectacle witnessed a massive 60' x 30' holographic screen formidably reinforced by top-notch rigging arrangements, with 4 units of the Christie WU25 laser projection system in conjunction with Dataton's Watchout media servers being deployed for the projection.

Sirvinder Pal Singh, founder director of Purple Vector speaks about the challenges in bringing together this herculean feat, as he informs, "The environment at the hill-top was rather unfriendly, and we had to deal with the elements including wind speeds of upto 70km/hr. Thanks to the great deal of collaborative planning and meticulous execution between the team members of Purple Vector, Toadlabs Technologies and Hertz & Pixelz; we were able to successfully execute a fantastic visual experience for everyone who witnessed it. A special vote of thanks to the entire team at Toadlabs Technologies, Hertz & Pixelz and of course the Government of Andhra Pradesh for trusting us and giving us the opportunity to execute this challenging project."

Finally, in terms of the live music space – the years 2022 and 2023 saw India being treated to several spectacular performance experiences from numerous world-class international and Indian talents alike. A shining example was the world-famous Lollapalooza festival which made its way to Asia for the very first time as Mumbai played host to what has now come to be known as the largest multi-genre music festival to have taken place in





*Lollapalooza festival.*

Asia, with a recorded footfall of over 60,000 audience members. Brought to India by leading entertainment company, BookMyShow who spearheaded the India edition of the festival as the promoter and co-producer along with global producers, Perry Farrell, WME and C3 Presents; the festival was spread across 4 stages namely the BUDX stage (mainstage 1), the Walkers & Co stage (mainstage 2), the Perry's stage, and the NEXA stage; and hosted global music sensations like Imagine Dragons, AP Dhillon, Diplo, Divine, Prateek Kuhad, The Wombats, and many more. The organizers left no stone unturned in ensuring nothing less than an absolute 'banger' of a festival experience; with the planning process for the event spanning over 6 months. The technical teams in addition to the overall tech-setup for each of the stages were decided months in advance; with brands like L Acoustics, Adamson, d&b Audiotechnik, Clay Paky, Elation, Martin Professional, MA Lighting, DiGiCo and many more playing a key role in bringing a truly wholesome experience together. Arguably 4 of India's top sound rental companies were chosen to extend their expertise for the festival, with Sound & Light Professionals commissioning the BUDX stage, Sound.Com commissioning the Walkers & Co stage, Audio Dimensionz commissioning the Perry's Stage, and Electrocraft commissioning the NEXA stage. On the lighting front, the organizers called upon the expertise of reputed lighting designer Naveen Deshpande of GroundControl to act as the Lighting Director for the entire festival, with reputed rental solutions providers Star Dimensions and Stage Engage being entrusted with the responsibility of providing

the superlative lighting infrastructure for the 4 stages. The sound and visual design for each stage exuded a uniquely characteristic ambience that extended an impressive sense of individuality; while still being perfectly synchronous with the overall vibe of the event – thereby extending a truly bespoke yet homogenous festival experience for the audience.

At this point, it becomes imperative to note that the events discussed above are some of the standouts from a long list of fabulously curated and expertly commissioned live experiences that have taken place in India over the course of the past 2 years or so. And though the list is quite exhaustive, each one of them have played a vital role in accelerating the recovery and subsequent growth of the industry through-and-through.

## Trends In Technology Purchases

The dramatic evolution of the on-ground live event landscape with respect to ideologies across functions such as conceptualization, planning, production design, and technical commissioning has prompted rental companies across India to invest into significant upgrades and changes to their respective inventories over the course of the past 2 years or so.

Key players from within the distribution network in India (i.e. distributors, dealers and channel partners) – confirm an encouraging spike in sales across 2022-2023; with sales figures apparently recording an impressive increase of approximately 54% in 2022 over 2021, and a



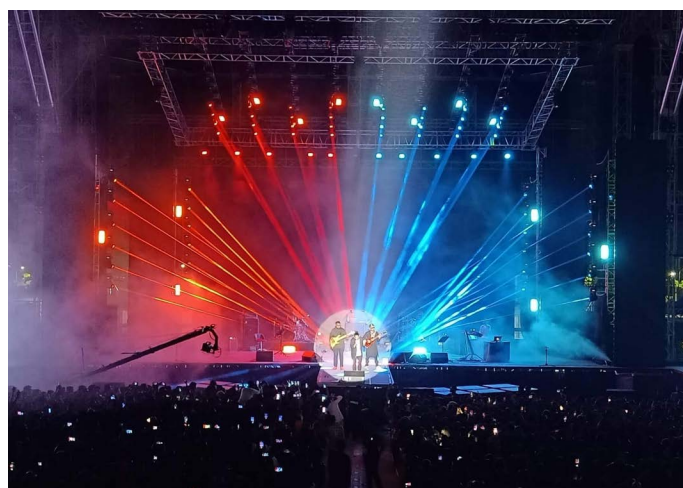
current growth trend of roughly 37% in 2023 (so far) over 2022. Apparently, revenues accrued over 2022 and 2023 are more an outcome of qualitative purchases rather than purchases made solely on the basis of quantity. In simpler terms, rental companies across service verticals have channelled strategic investments into products and technologies that have helped them enhance their current portfolio of service offerings. Some of India's leading rental solution providers like Reynolds Sound & Lighting Services, J Davis Prosound & Lighting, Star Dimensions, Audio Dimensionz, Spectrum LED LLP, Sound & Light Professionals, Electrocraft, Sound.Com, Picture Productions, Modern Stage Services, Men-At-Work Stagecraft, Natura; and countless others have all made crucial investments in 2022-2023 into bolstering their respective inventories with technologies and systems that offer expanded capabilities to do more and achieve more for a wider variety of event applications and scales.



"The live market has become much more spread across the whole country - even B Town cities have regular events and vendors in these markets have all upgraded their inventory, and are now being able to cater to big performing acts. There have been new

trends in almost all categories – be it audio, lighting, video and even in rigging. For example, in audio we are seeing a move to bigger brands, and everyone seems to be stepping up the ladder. In lighting, the move to LED and IP based lights are being more noticed. In video, rental companies have moved out of the lower resolution 3.9mm LED, to the higher resolution 2.6 and 2.9mm with more features like curved screens and screens with different design capabilities like box angles etc. Even in rigging, companies have moved into synchronised motorised hoists etc. Personally, we at Reynolds have completely moved from the older 3.9mm LED screens, as we recently acquired around 3500 sft of 2.9mm LED screens. At the same time, we have updated all our video inventory to 4k capabilities. Most importantly though, we have also upgraded our audio gear across the board to the new SL series from d&b Audiotechnik with complete full spectrum cardioid technology which

has been making waves in the market both nationally and internationally. We've doubled our investment in d&b audiotechnik with the addition of the KSL and the new XSL series speakers, which are the first in the country! Moving forward, we intend to phase out almost all of our older inventory and instead acquire newer technologies and systems that are at par with the best in the world!" shares **Felix Remedios, managing director of Bangalore based Reynold's Sound & Lighting Services** – who hold the distinction of commissioning some of the most technologically intricate and complex large-scale events to have taken place in India.

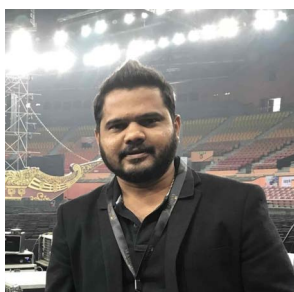


*An event handled by Reynold's Sound & Lighting Services.*

From the professional audio perspective, most event producers have been noted to demand a more immersive and encapsulating sound experience, while also insisting on the physical loudspeaker system / setup to be as minimally (visually) imposing as possible (as these apparently are some of the pre-requisites on tech-riders of several touring artists who have performed in India over the course of the past 3 years). This proved to be one of the key driving factors why brands like d&b Audiotechnik, JBL, Adamson, and L Acoustics noted an upsurge of purchases across 2022-2023; as investments into loudspeaker systems in general saw an exponential increase over the past two years or so. At the same time, wireless microphone systems too witnessed a significant increase in sales figure over 2021, with systems like the ULX-D, SLX-D and Axiem systems from SHURE and the Digital 6000 wireless from Sennheiser gaining a great deal of momentum. The biggest winner, however, was the digital mixing consoles category which boasted the largest spike in sales numbers, with consoles like

the AVID S6L and the DiGiCo SD 10 and Quantum 338 respectively garnering immense traction across the country.

The paradigm shift in working ideologies of live events and a renewed emphasis on creating visually stunning live experiences, ushered in a wave of investments within the lighting segment as well, with several reputed rental companies across the country reinforcing their existing lighting inventories with technologies from brands like MA Lighting, Clay Paky, and Martin Professional across 2022 and 2023. For example, the grandMA3 lighting control system (full size, light and compact XT) became quite sought after within the Indian market, while fixtures like those from Martin Professional's MAC series and Clay Paky's Mythos range were also reported to have done extremely encouraging numbers in terms of sales. Visual technologies, which encompasses services such as projection mapping, video mapping, LED screen rentals, etc is yet another segment of the industry that witnessed a tremendous shot in the arm with a steady flow of investments into products and technologies across product categories like laser projectors, controllers, media servers, process oriented softwares, and LED screens for indoor and outdoor use. While several rental outfits have been noted to invest into multiple units of 40K and 20K laser projectors from brands like Christie and Barco in order to fulfil the growing demand of increasingly challenging and complex projection mapping projects; there's also been an upswing in the purchases of media servers from Watchout and Pixera, along with associated latest generation softwares to fulfil these exigencies. At the same time, the acquisition of LED screen / videowall technologies seemed to rise significantly, with rental companies across the country transitioning to finer pitch LED screens like the P2.9mm and P2.6mm for indoor and outdoor applications, in order to meet an overwhelming demand for 'better resolution and more vivid screen performance'.



**Suryakant Bandavane,**  
**director of Pune based**  
**Surya Productions LED**  
**Video Wall** – one of the  
largest regional suppliers of  
visual technology solutions  
for live events across the  
board – shares a few crucial

inputs on the trends that influenced his own purchase decisions, as he comments “Over the past 2 years or so, there's been a burst of live events across India – be it sports or cultural, political rallies or live music events – the entire industry seems to be veering towards larger scale projects. These however have presented their own set of demands; especially in the visual space, where everything now needs to be bigger and better than before. The thing is, clients have gotten extremely particular about nuances – stuff like the pixel pitch of LEDs and how bright and clear the resolution of the screen is. We picked up on this a long time ago, and therefore invested into acquiring a large lot of P4.8mm screens for outdoor events and P3.9mm screens for large scale indoor events. These joined our existing inventory of P2.9mm screens that we've been deploying for corporate gigs and smaller scale indoor events – in fact we were among the first in the region to acquire it. At the same time, we have also added a fresh new batch of fibreoptic solutions, matrix switchers, 4k processors, latest visual softwares including a complete kit from Resolume, media controllers, and media servers from Watchout as well. In the near future, we plan to invest into securing a large batch of mesh LED screens for outdoor use, along with a batch of P2.6mm screens for indoor applications. And soon enough, we also plan to dive deeper into the projection mapping domain with an already earmarked investment for an entire kit of 40K laser projectors.

Finally, with the scale of events becoming increasingly larger and more complex from the point of view of production design and technical commissioning, trussing and infrastructure as a service segment has witnessed an encouraging upturn in recent times, with service providers within this category exploring new and innovative technologies and systems that can contribute qualitatively to safer, more accurate and quicker turn-around times during setup and de-rig, while also being unshakably dependable during the course of the event-runs itself. For example, Graflex Inc, which also stocks an impressive inventory of trussing gear, have been investing heavily in 1010 heavy duty trusses and motor hoists, with Anil affirming that brands like ChainMaster (who specialize in chain hoists and hoist controllers etc) hold the potential to usher in a new era of rigging within live events scene. Alongside, it is also reported that



An event featuring LED video walls by Surya Productions LED Video Wall.

brands like Protos (which specialize in load monitoring systems) have managed to make crucial breakthroughs within the Indian market. At the same time, the past 2 years have been rather fantastic for homegrown brands like DevilTruss / GiantTruss who have been successful in garnering new clients and buyers from the farthest extents of the country's geographical landscape with their extensive catalog of products comprising all types of trusses imaginable (including Roof trusses, box trusses, goal-post trusses, T-trusses and several more), line-array tower erection systems and hoist controllers.

## Overcoming On-ground Challenges – The Rental Services Perspective

Addressing the elephant in the room right from the get-go – Budgets, pricing, payment procurement, and all things money ... have for long been a key pain-point for the rental services industry to deal with. While every event producer aspires to put together a mesmerizing spectacle and a bespoke experience with every project that they take on; often times 'budgetary constraints' turn out to be the bridge that simply cannot be crossed. And while it is true that the overall quality of events has in fact improved tremendously over the past few years

thanks to better planning and more thoughtful budgeting; one cannot deny that there's still a lot of scope for improvement.

For example, Anil points out the lack of payment regulations as 'one of the top 3 challenges' that rental companies in India deal with on a regular basis – be it willingly or unwillingly. As Anil explains, "One key improvement that we need to happen quickly within our industry ecosystem is the introduction of stricter regulations in payment policies and structures. In general, a lot of rental companies struggle with payment recovery for services that have already been provided; and as such it is important to have some kind of policies working to the favour of rental companies that will help them receive their dues on time and in turn allow for timely investments to be directed into better technologies and systems that will invariably contribute to elevating the quality of future events."

On the other hand, there have also been numerous instances where rental service vendors themselves have either severely undervalued the cost of their services or have provided event producers with heavily discounted 'package deals' simply to win the job; but have later found themselves unable to deliver the desired quality of execution or experience, simply because the



remuneration received could not justify the cost (which quite obviously would've been out-of-pocket for the vendor).

"The rental pricing in India is probably the worst in the world; and that's mainly because a large majority of the Indian market is yet to understand how to value their own equipment and technical staff. One needs to understand that equipment has a short life span and the cost of acquisition and maintenance needs to be factored in when you quote for every event. At the same time, it is also important to value the work and effort that your company's staff puts into each project, and therefore you need to charge adequately for this too. The rental service companies who do not follow basic principles like these – those who do not pay their staff adequately and continue to do shows for 'cheap' rates – will figure out in the long run that they are in the wrong business. With the rising cost of almost every single thing including manpower, it'll get increasingly difficult for companies to sustain if they choose to continue with the kind of minimal pricing model that's been prevalent for so long!" asserts Felix on the matter; as he goes on to note the shortage of trained manpower as another key challenge that rental companies across India are forced to deal with in the current scenario.

Now the thing is, it's not like that there's no silver lining at all. Quite a few rental companies across India have woken up to the aforementioned realities and have taken concrete steps in terms of course-correction. For example, a number of rental companies who are registered members of the Event Equipment Services Association (India's leading not for profit national organization dedicated to promoting a structured, secure and progressive business environment for and within the event equipment rental services and technical services industry) have taken heed to the association's recommendations and have adopted healthy business practices such as working with written agreements that clearly documents the terms and conditions of work including definitive payment clauses (a minimum of 50% of the fees to be paid as advance and the balance amount to be paid within a strict stipulated timeframe, etc) among many other pre-event, on-site, and post-event requisites.

A steady widespread adoption of structured business practices as the ones mentioned above, and more crucially, the consistent and persistent application of these practices; might as well hold the key to ushering in a new and more progressive era of live events in India.

## Notes For The Future

There's absolutely no doubt in the fact that the live event market in India has evolved exponentially over the course of the past 3 years or so; with new ideas, out-of-the-box thinking and enhanced technological capabilities driving innovation and growth within the industry. As the market continues to assimilate a more diverse range of event applications and production methodologies in search of delivering the next big mesmerizing event extravaganza; the market seems poised to become even more vibrant and dynamic. And rental services providers specializing in live sound, lighting, LED/videowall technologies, projection mapping, sfx, and trussing / infrastructure will undoubtedly play a key role in meeting the demand for enhanced engagement.

On a side note, industry personnel have taken note of the ever-increasing presence of AI in daily life, with some sharing the belief that this has introduced a sense of disruption especially within the event management side of things. However, it must be noted that current AI capabilities by itself cannot efficiently manage all the various dynamics involved into bringing a successful event together; and as long as events continue to rely on the magical confluence of creativity and technical ingenuity for its success – the need for skilled, capable and experienced human personnel will always stay relevant.

[Graflex Inc](#)

[Natura](#)

[MSS World](#)

[Purple Vector](#)

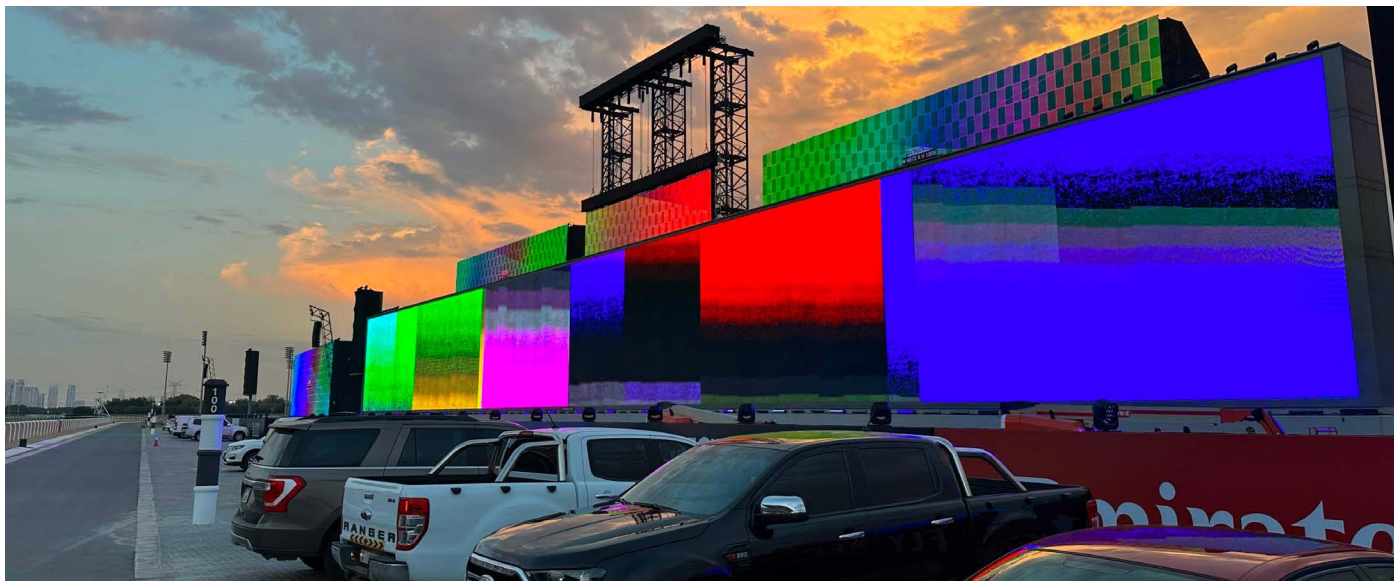
[Reynold's Sound & Lighting Services](#)

[Surya Productions](#)

## DUBAI

# Unusual Rigging & Engineering Races to the Finish Line for Dubai World Cup

*One of the most prestigious horse races in the world enlisted the help of Unusual Rigging & Engineering in a spectacle that included 1900 UAV drones, aerobatic planes, lighting, sound, video, and pyrotechnics*



The Dubai World Cup is one of the most prestigious horse races in the world and marks the end of the Dubai racing season. At the end of each year, the Dubai Racing Club stages a lavish closing ceremony. In 2023, Artists in Motion (AIM), were contracted to deliver a show that was to be bigger than any ceremony to date. The show included video, lighting, sound, 1900 x UAV drones, aerobatic planes and pyrotechnics. Unusual Rigging & Engineering (URE) was on hand to provide structure and rigging to support the main screen and lighting fixtures.

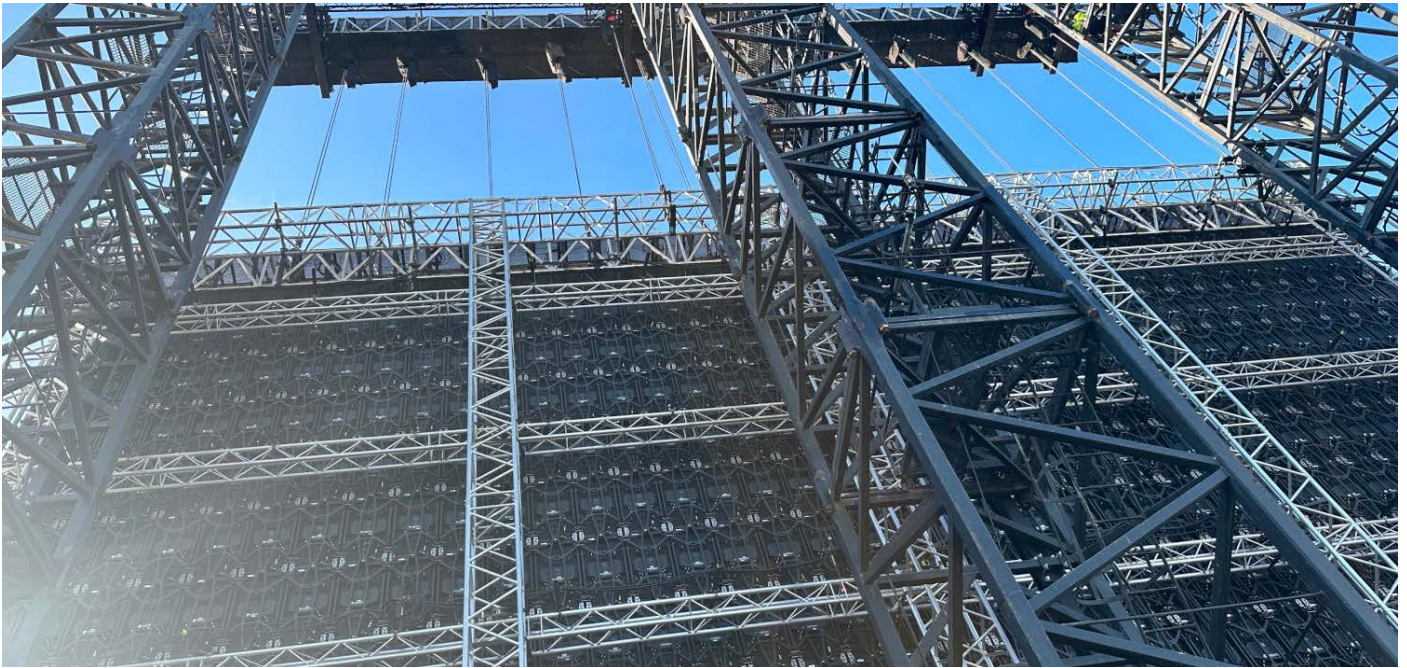
Executive Producer of AIM, Liz Goodyer explained, "Our brief was to support a large LED screen with minimal visually intrusive rigging but maximum safety. AIM and our team have not worked directly with URE before, however, we have worked alongside them on many

international events and their reputation precedes them, so we were thrilled to be able to work together on this project."

Goodyer continued: "With the audience on-site during the day, it was important to our client to not have the visual of intrusive structures around the racecourse. It was vital to maintain a clear line of sight for the race caller from the main stand to the far side of the track. This meant the screen had to be held in a low position, during the day and only reveal its full height just prior to the ceremony commencing. The URE team was instrumental in making this happen."

Work began on-site following the conclusion of the last race meeting, to install test and rehearse all systems.





Nick Newey, technical director at AIM shared: “URE set out a schedule of work to achieve the timeline and they stayed right on track throughout the build and dismantle. The original plan was to use a mesh projection surface. We’d used this on previous large events, however, we tested the system in-situ at Meydan and the amount of ambient light from the stadium and city surround washed out the projection and did not achieve the desired effect. So, 2 months of planning and engineering was thrown out and we had 2 weeks to completely re-design the system.”

Goodyer added: “URE pulled out all the stops, worked overtime and weekends to take our revised plans and design and engineer the system in record time, bringing great peace of mind to the AIM team.”

Richard Hoare, project manager, URE affirmed: “To meet this last minute brief, we had four engineers working full time to devise an 11th-hour solution that would support, lift and lower an 18 tonne LED screen, measuring 20m x 13m, for the show’s content. We also used a significant amount of 52B truss as well as 18 Kinesys hoists and worked with the screen supplier to ensure the screen could be installed quickly and safely.”

AIM’s client, Dubai Racing Club had very high expectations and was initially disappointed that the original ‘Hologram’ effect couldn’t be delivered. Nonetheless, they were very happy with the replacement technology which brought greater luminosity and a larger canvas to work with, to deliver the huge, bright, and spectacular event.

Newey thanked Richard and the whole URE team for their fast and efficient work, “They were an absolute pleasure to work with, they worked to the schedule and provided clear feedback on how the project was progressing and any challenges they had. They worked collaboratively with all contractors to ensure we had an efficient, happy and safe work site. We look forward to the opportunity to collaborate with the team again in the future.”

### Unusual Rigging & Engineering



## INDIA

# The Ultra Cool Concert Experience

*The road To Ultra: INDIA gives Mumbai and Bangalore a reason to party in style*



ULTRA : INDIA, Mumbai

ULTRA Worldwide, widely recognized across the globe as one of the most iconic and beloved international music festival brand, recently made a triumphant return to Indian shores with its signature event series, Road To ULTRA : INDIA. The highly anticipated electronic dance music mega-event has garnered a reputation for delivering top-notch performances from some of the biggest names in the EDM scene; previously garnering more than 50,000 attendees to enjoy performances from superstar acts like The Chainsmokers, Rezz, Sam Feldt, and Slushii.

And this year the Road To ULTRA : INDIA graced Mumbai and Bangalore to give fans of electronic and dance music an experience that they'd remember for a long time to come.

The day long marathon event that took place in Mumbai and Bangalore showcased some of the hottest names in electronic music, along with mesmerizing stage designs

and all-encompassing entertainment experience for audiences. And considering the consecutive nature of the event programming, both the showcases i.e. Mumbai as well as Bangalore, featured the same stacked line-up of globe-trotting, chart-topping electronic music heavyweights like KSHMR, Afrojack, James Hype, CESQEAUX, Chico Rose, DJ MYKRIS, Siana Katherine, and more. Both the Mumbai and Bangalore editions of the showcase were a huge success, drawing crowds of EDM fans from all over India, as it provided an opportunity for fans to connect with their favourite artists and to experience the unique energy of a truly world-class live EDM concert spectacle. And in true ULTRA style, the Road To ULTRA : INDIA was no less than a celebration that effortlessly brought together an unmatched confluence of top-tier electronic talent, cutting-edge technology and large-scale productions.

Speaking of cutting-edge technology and large-scale production – both Mumbai as well as Bangalore attested the true prowess of live event technology service providers in India, with both showcases being graced with an absolutely mesmerizing soundscape that not only encapsulated the (respective) crowds in enchanting aural atmosphere, but also allowed the artists and performers to enjoy every single moment of their time on stage.

Sound & Light Professionals – one of the most celebrated and decorated rental service providers in India – curated the spectacular sound experience at the Mumbai showcase, as they deployed a formidable all L-Acoustic loudspeaker solution for the event. The team weaved together a bespoke stereo hang of 10 + 10 units of the L-Acoustics K1 line array modules paired with 3 + 3 units of the KARA line array modules, which acted as the primary FOH PA. To further enhance the coverage region, a total of 12 units of the ARCS II 2-way active full-range constant curvature WST line source modules were deployed as frontfills to cover the audience located directly in front of the stage. And considering the sheer volume of crowd present for the event, SNL Pro deployed an additional 18 units of the K2 line array modules as the stereo delay solution in order to efficiently cover every last audience member located at the farthest end of the venue. And rounding off the spectacular loudspeaker setup, a cumulate of 32 units of the SB28 subwoofers were deployed in line to assure powerful and impactful low-frequency fidelity. The systems engineering team meticulously ensured that the FOH, fill systems and delay systems were in perfect time-alignment; which is what allowed the crowd to enjoy a truly seamless audio experience with absolutely no drop-zones anywhere across the venue.

In terms of the audio technologies on stage - a total of 3 + 3 units of the KARA II were paired along with 2 + 2 SB18 subwoofers to act as the superlative booth monitoring solution as it provided the world-class line up of performers with an absolutely enveloping and well-balanced monitor sound experience.

The PA loudspeaker system was powered through multiple units of the efficient and super-powerful LA12x power amplifiers, with the monitoring solution being powered by multiple units of the LA8 amplifiers. Unparalleled loudspeaker management and control was

achieved through the use of the maverick L-Acoustics P1 processors; with a single unit of the ultra-smooth SD10 digital mixing console from DIGiCo along with the SD Rack being deployed as the main FOH mixing solution. Furthermore, team SNL Pro provided multiple kits of the industry standard CDJ3000 professional DJ multi-player along with multiple kits of the acclaimed NEXUS 2 system (CDJ2000NXS2 + DJM900NXS2) for the artists to spin their magic on.



*ULTRA : INDIA, Mumbai*

Needless to say, the entire showcase proved to be an absolutely sublime experience for the crowd and the artists; with Manish Mavani of Sound & Light Professionals sharing his thoughts on the event stating, "Such a pleasure to see the crowd enjoy this worldclass line-up at the Road To ULTRA : INDIA. And such an honour to see the artists so happy to enjoy a technically flawless event. As always, our entire team of technical wizards at SNL Pro worked tirelessly in putting together such an impressive production, and I'd like to congratulate our crew members for another job well-done. It feels great to have played our role to perfection in pulling off such a wildly successful event!"

The experience for the crowd at Bangalore was no less, with the legendary Reynolds Sound & Lighting Service Pvt Ltd bringing to life an absolutely magnanimous soundscape. Noting the scale of the gig in itself, the Reynolds team commissioned a thorough analysis of the venue to gauge the scale of inventory needed for the



gig; wherein the team used a mix of Vectorworks and MA-3D softwares to help consolidate various designs and plots to narrow down on one cohesive technical infrastructure that proved to be the lifeblood of a truly unforgettable performance experience for the audiences.



*ULTRA : INDIA, Bangalore*

Team Reynolds decided to deploy the compact yet extremely powerful and efficient KSL line array system from d&b Audiotechnik; with a total of 24 line array modules deployed in standard L-R hangs and complemented by a total of 20 units of the SL subs (again from d&b Audiotechnik!) to assure chest-thumping low-frequency fidelity. Furthermore, team Reynolds deployed 8 units of the XSL line array modules to act as side-fills and another 8 units of the XSL line array modules to act as centre-fills – thereby ensuring that the audience members located directly in front of the stage and the stage flanks enjoyed the same high-quality sound experience – while an additional 12 units of the KSL line array modules were deployed as the delay solution to cover all the audience members located at the extreme ends of the venue. The entire audio system was controlled from FOH position through the ultra-efficient SD10 full-format mixing console from DiGiCo (complete with WAVES);

while the stage being adorned with multiple sets of the industry standard Pioneer DJ Nexus 2 systems comprising CDJ2000 DJ controllers along with the DJM900 DJ mixers, in addition to multiple kits of the CDJ3000 multi-players – all of which were put to good use by the heavyweight line up of artists who spun their magic and had the crowds grooving to their tunes.

In addition to the music, team Reynolds ensured that the sights of dazzling lights and captivating visuals added to the immersive environment for the audience to enjoy, as the team deployed over 60 units of the Mythos 2 moving head spots from Clay Paky, expertly blended in with over 17 units of the PR 330 super sharpies, 24 units of the Collider strobes, 8 units of high-performance LED Bat-tens, and 24 units of industry standard LED PARS – all of which came together in soulful unison to create spectacular lighting designs and effects that left the audiences in awe. The flagship GrandMA3 (full-size) lighting control console from MA Lighting enabled the lighting design experts to show-off their prowess, with the added assurance of an additional grandMA2 console also available on stand-by if the need ever came up.

Speaking about the experience of commissioning the technical reinforcement for the event, Selwyn recounts, “I believe we pulled together brilliantly to deliver a flawless event thanks to the high quality and dependable world-class equipment that we deployed, and of course, our diligent inhouse team of expert engineers. Unsurprisingly, the results were phenomenal, as we all witnessed the capacity crowd going wild to the beats dropped by all the phenomenal world-class performers who gave us all one of the best electronic dance music experiences to remember.”

It comes as no surprise that The Road To ULTRA : INDIA showcases in Mumbai and Bangalore were a true testament to the growing popularity of EDM in India. And as the popularity of EDM continues to grow in India, we can expect to see more expertly curated and expertly commissioned music extravaganzas like these in the years to come.

**Sound & Light Professionals**

**Reynolds Sound & Lighting Service**



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