

# PALM<sup>TM</sup> technology

SOUND & STAGE • LIGHTING • INSTALL SOUND • MUSIC PRODUCTION • DJ TECHNOLOGY

EXPO PROMOTION

## THE FAMOUS STORY

**ANANT ROONGTA** infuses fresh energy and perspective into the seven decade old family business



*Electrocraft Delivers*

## THE NEXT DIMENSION OF STAGE PRODUCTION

at Filmfare Awards 2019

**BTOS PRODUCTIONS -  
THE RISING STAR**

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FROM HONEYWELL**

**RIDING THE LED GROWTH WAVE  
NOISE CONTROL KILLING MUSIC?**

**REYNOLD'S BRINGS  
D&B AUDIOTECHNIK  
KSL TO INDIA**

**FIXINTOGETMIXIN  
with Brad Divens**



Theme: LIVE

MAY - JUNE 2019



# NovaPro UHD Jr

Real 4K All-in-One Controller



- 16 × Ethernet ports, 4 × optical ports, reaching 10 million pixel loading capacity.
- A button to scale, amazing scaler definition, for excellent visual
- 2 real 4K layers
- Support HDR10
- Works as either sending card or optical converter
- OPT support hot backup and copy
- Ultra-Low latency





**palmexpo**  
pro audio lighting music

30th May - 01st June, 2019  
Booth No. Hall 3, E50

# C1 + N9

## Live Event Solution

A totally new way to experience event operation is coming



**C1**

Dual LCD  
Touchscreen Console



**N9**

Real 4K  
Seamless Switcher

- **Digital Inputs = Flexibility**

9 channels of all-digital input sources, including two 4K source inputs touch control

- **Touchscreen = Simple Operation**

The C1 has a dual-LCD touchscreen design, The left screen allows monitoring, and the right screen allows

- **7 layers + OSD = Creativity**

Support for 7 layers + OSD + BKG + Logo, allowing for a wide variety of layouts.

The 7 layers can be in any location. Supports 32 user presets

- **Power = Clarity**

Can output 4K × 2K @60hz, which is very powerful and important in the rental market.

# A12



**PROFESSIONAL**  
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ENGINEERED  
FOR PERFORMANCE

**JBL DURAFLEX™ FINISH**

## JBL RBI + LF DIRECTIVITY CONTROL DEVICES

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**4 X JBL 2165 MID-FREQUENCY WOOFERS**

**2 X JBL 2265 LOW-FREQUENCY WOOFERS**

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## Next Generation Dual 12" Line Array Loudspeaker

JBL VTX A12 is a complete tour sound solution for mid to large-size touring applications and high-end fixed installations. VTX A12 was designed from scratch to address the unique challenges of rental companies, FOH engineers and tour sound production crews. Next-generation JBL transducer technology and a high-frequency waveguide design deliver unmatched performance, sensitivity and coverage. A patented JBL rigging mechanism and redesigned suspension system streamline deployment and setup. And refinements to the physical design maximize reliability and versatility, while minimizing size and dramatically reducing weight. VTX A12 isn't just a superior line array—it's a completely new way to approach tour sound.



## KEY BENEFITS

Next-Gen JBL Loudspeaker Technology   Fast Innovative Rigging   Full Set of Accessories

■ JBL Transducers ■ Lightweight Truck-Friendliness ■ Comprehensive Software Suite

AKG

**AMX**



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Soundcraft®

STUDER

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EDITION 01:



## Delta 20

### a time for new adventures

The Delta 20 is our High Powered, Dual 18" Subwoofer which can be stacked horizontally and vertically to form an ultra low frequency subwoofer array. With the incorporation of the Dolly Cart mount, transportation on the Delta Twenty is quick and easy. The Delta 20 responds to frequencies as low as 30 Hz and is known to deliver a flat response. Coupling this performance on the driver along with a twin 2500W amplifier module (powering each driver independently) gives the system great efficiency. The system also gives the user 512 FIR Taps, controllable via the Delta Tune Software and a single Cat-6 cable. The Delta 20 is meant to be flown below the Delta 30 for high performance touring. It can also be couple with other elements in the 9 or 8 series to be a part of a larger system in a nightclub or performance venue.

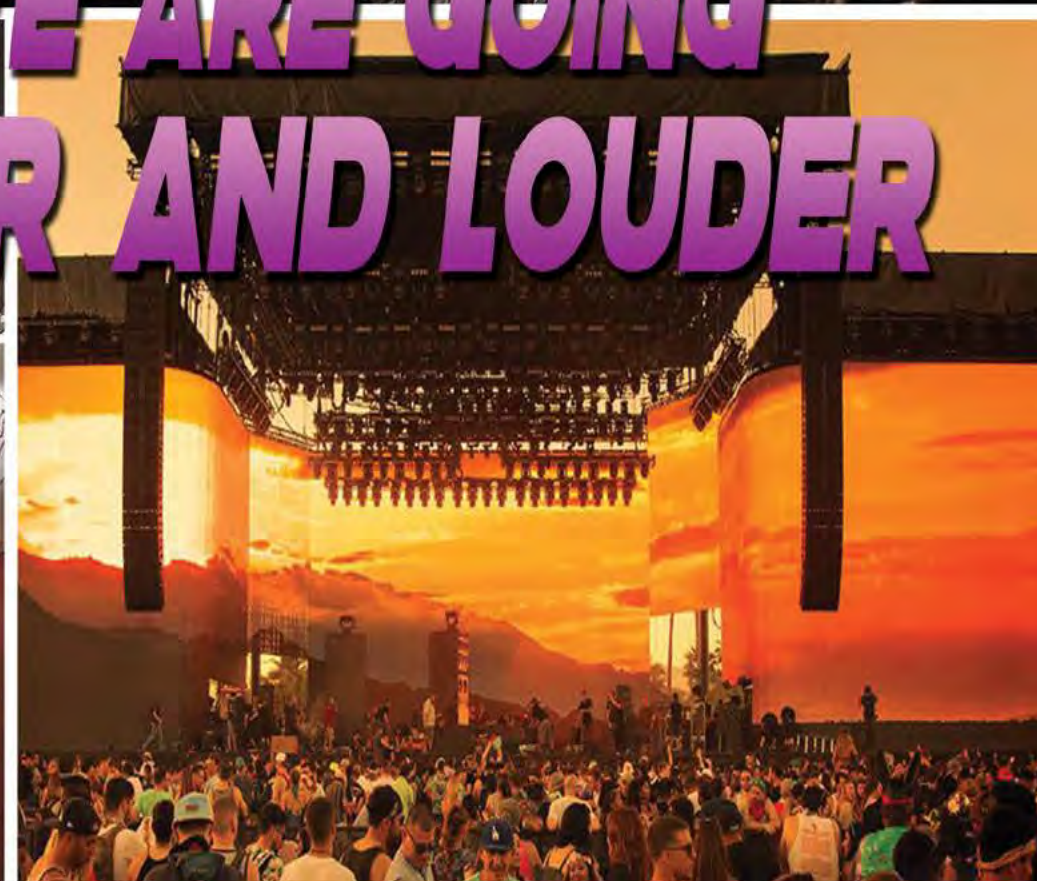
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# THIS YEAR WE ARE GOING BIGGER AND LOUDER



WE ARE PLEASE TO ANNOUNCE THAT WE WILL BE PARTICIPATING IN PALM EXPO FROM 30TH MAY- 1ST JUNE, 2019. HI-TECH AUDIO SYSTEMS INVITES YOU TO DISCOVER THE BEST OF AUDIO, VIDEO & LIGHTING INDUSTRY. **VISIT US AT HALL 1- BOOTH H29.**

**DiGiCo** UK Ltd



**30.05 - 01.06.2019**  
Bombay Exhibition Centre,  
Goregaon (East), Mumbai, INDIA



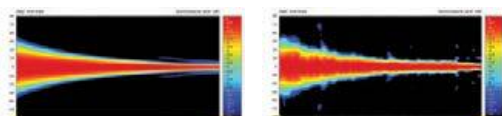
# Geo M12

Taking line array performance to a whole new level



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System flexibility can be increased by adding magnetic flanges to the HF waveguide exit, changing the standard 80° acoustic coverage across the horizontal plane to 120°. No tools are required to remove or replace the grille and flanges.



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Actual measured response

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- Geo M12 for live events
- Geo M12 for public address
- Geo M12 for concerts and festivals

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## 19 Glorious Years of PALM

India is fast recognized in the global pro sound and light industry as a leading market with capabilities both financial and expertise to exploit the latest innovation and product, and over 19 consecutive years, it is PALM which has been the fulcrum on which revolves the pro sound and light, trade and investment.

I was part of the PALM team in its inaugural year and now, even after almost two decades the excitement is still new. Bringing new product and tech to the PALM each year is what excites us and it is what we chase. My heart swells with pride to see how PALM has moved in tandem with other global expos in Europe and US for demonstrating the latest products launched.

Best part of the excitement is organizing the industry conference and engaging with the entire professional fraternity, be they from rental, or distribution or the creative forces of sound, music, FOH, lighting, designers and engineers.

As PALM moves from strength to strength, the expo has been reinvented and redefined for future scape and future scope. The expo has instituted parallel exhibit halls for sound and light, leading to greater efficiency to review products.

Change is the only constant. The new horizon is AV install and integration and Information Communication. In response to the growth dynamics, we instituted another parallel concurrent expo – **AV Integrated Systems** expo.

The Digital India and Smart Cities initiative by the Government is attracting huge investments into AV. The need for tech solutions in Pro AV Integrated Systems in Education, Government, Health, Hospitality, Retail, Building and Infrastructure, Corporate and Broadcast sectors will be met at the Expo.

An important feature of the expo is the **AV Summit**, which offers valuable opportunities for sharing expertise in design and execution. The Summit includes a variety of informational seminar sessions and presentations and boasts of the best of AV Industry leaders speaking on technology trends in the industry.

The AV expo has achieved in establishing a technology and industry platform for information communication. The expo has also pulled off a coup with the Certified AV Specialist Training by **Ranjit Singh** on the topic of AV in the Digital Era. We closed our registrations at 40 delegates.

The AV expo has achieved in establishing a technology and industry platform for information communication, in its first year but the expo is still work in progress and we are confident of keeping the momentum growing in future editions.

Refocusing to this issue of the magazine, the pages have an unusual number of interviews. Moreover, there are even two of the '11 Questions' interviews this time around. Not that I'm complaining!! All of them make for a great read and provide an understanding of where the industry is headed.

In **11 Questions** (Lighting), **Josef Valchar** puts focus on Robe products and services that are constantly kept evolving and moving forward (**pg.89**), while we get a summary report from **Rasesh Parekh** on Robe's growth and progress in India.

In **11 Questions** (Audio), **Michele Noselli**, outlines (pun intended) the company's philosophy, R&D process and product (**pg.109**), as Outline approaches its 50 years in the business.

**PT** team met **Anant Roongta**, the third-generation scion, now at the helm of Famous Studios. His focus on future tech is evident. The studio has expanded to offer high-end production services such as Motion Capture, Phantom Flex tabletop production, Dolby Atmos audio mixing and a brand new creative co-working space called The Famous Working Company. Full Story on (**pg.36**).

Using the latest trends and state-of-the-art solutions from acknowledged global brands defines the Indian market and its potential. One of India's foremost rental outfits - Reynold's, became the first in India to purchase d&b audiotechnik's KSL systems launched at NAMM in January this year. **PT** got in touch with Felix Remidos to know more about this purchase, (**pg.82**).

Honeywell is the new entrant on the block in the professional sound segment. **Amit Kaushal**, General Manager, Honeywell Building Technologies, India talks about the new products (**pg.86**), which visitors to PALM will also see and experience for the first time on the show floor.

Another relatively new company in the professional lighting segment, making their presence felt at PALM is Mangalore based **Leksa** Lighting. Interview with CEO **Ronald S D'Souza** on (**pg.50**).

This is all good, and encourages investment, but beyond tech essentials is where creativity comes into play. It not just about getting access to the most recent plugins and the most recent consoles voices **Brad Divens**, FOH for Enrique Iglesias, who gave tips on crafting a signature mix to FOH engineers, during the India leg of his fixintogetmixin class series organized by HARMAN Professional India in Mumbai (**pg.40**).

**Roger Drego**, the pioneer of stage sound and light in India and his team at Electrocraft, delivered an outstanding immersive entertainment experience at the 64th edition of the prestigious Filmfare Awards, presented by The Times Group. Turn to (**pg.32**) to get a lowdown on the comprehensive system of automation solutions, comprising of revolving rings, floating platforms powered through state-of-the-art hydraulic lifts, speed controlled large frame travellers, massive Turntable section with two individually controllable rings, deployed with great precision by Electrocraft.

**BToS Productions** are the new guys in the event space. In conversation with Ankita Bhadrawale, frontman **Nazeef Mohommad**, talks about the company and his reverence for **A.R. Rahman** on (**pg.52**).

Don't miss out on **Sushma Gaikwad's** tribute to the dynamic event industry that has constantly evolved to provide an opportunity for creativity and innovation to blossom into enterprises and business collaborations. (**pg.58**).

Here's wishing all our exhibitors who have travelled from across the world to be part of this extravaganza a super duper successful show! The next issue is the PALM 2019 Post Show Review issue. Stay Tuned for exciting news from the Show floor.

Cheers!

**Smita Rai – Content Anchor**





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# PALM TECHNOLOGY

## CONTENT CHIEF

Anil Shiv Raj Chopra  
achopra@palmexpo.in

## CONTENT ANCHOR

Smita Rai  
srai@palmexpo.in  
Mob: +91 98209 43398

## CONTENT MANAGER

Ankita Bhadrawale  
abhadrawale@palmexpo.in  
Mob: +91 89668 12132

## RESPONSE MANAGER

Priyanka Sharma  
psharma@palmexpo.in  
Mob: +91 80175 62056

## DTP MANAGER

Peter Pereira  
ppereira@palmexpo.in

## WEB DEVELOPER

Dimple Shah  
dimple.s@abec.asia

Amol Kanchawade  
amol.k@abec.asia

## DISTRIBUTION

Vaishali Teli  
vaishali.t@abec.asia

## CONTENT PRODUCTION & RESPONSE OFFICE

PALM TECHNOLOGY  
530, Laxmi Plaza, 5th Floor,  
Laxmi Industrial Estate, New Link Road,  
Andheri (W), Mumbai – 400 053.  
T: +91 22 4286 3900

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BOOTH NO. C45**



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# FAMOUS FOR FUTURE TECH



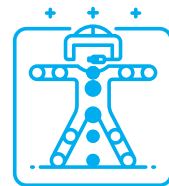
## 4K Video Post Production

Colour Grading on Baselight  
& Online on Flame Premium 2019



## Audio Post Production

Sound Mixing on Dolby Atmos 7.1.4  
& 5.1 equipped rooms



## Motion Capture

Real time Pre-viz &  
Facial Capture technology



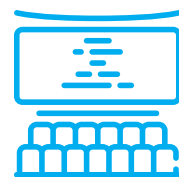
## Visual Effects Facility

Specialist in CGI for Feature films,  
TVC's & Web-series for OTT platforms



## Phantom Flex Lab

Hi-Speed table top lab with  
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**Nikhil Pednekar** (Audio & Video Post Production):  
+91 9619154919 | [nikhil.pednekar@famousstudios.com](mailto:nikhil.pednekar@famousstudios.com)

**Saurabh Lakshakar** (VFX):  
+91 72087 85951 | [saurab@famousstudios.com](mailto:saurab@famousstudios.com)

**Avadhut Desai** (Production):  
+91 93236 49060 | [avadhut@famousstudios.com](mailto:avadhut@famousstudios.com)

**Mohanan** (Studio Bookings):  
+91 9323989944 | [mohan@famousstudios.com](mailto:mohan@famousstudios.com)



**Manish Gandhi**  
**Director & Chief Operating Officer**  
**ABEC | ITE**

## ***Manish Gandhi: Increasing demand for high-tech, state-of-the-art audiovisual, lighting and integrated Experience Solutions across various industry sectors, offers exciting opportunities for manufacturers and distributors at the expo***

On behalf of ABEC Exhibitions & Conferences Pvt. Ltd., it is a pleasure to welcome all delegates and exhibitors to the 19th edition of the vibrant PALM expo 2019, taking place concurrently alongside the inaugural edition of AV Integrated Systems expo 2019. We are thrilled to be hosting the first AV Integrated Systems expo in Mumbai, the financial, commercial and entertainment capital of India.

We are determined to establish AV Integrated Systems Expo (AV-ISE) here in Mumbai, which the Indian AV industry had expressed an urgent need for a cost-effective, market-driven AV platform, which will deliver business. Our performance is proven, with the tremendous contribution of the PALM expo to the pro audio industry. Our commitment and investment to connect AV manufacturers and distributors with Systems Integrators (SI) and AV consultants will establish AV-ISE in 2019, in its first edition.

At AV-ISE and PALM, we are bringing the entire gamut of pro audiovisual, entertainment event and music production technology from across the globe. By doing so, we have created an excellent platform for achieving the ultimate goal, which is to further propel the immense potential of the pro audiovisual and professional lighting industry in India.

Increasing demand for high-tech, state-of-the-art audiovisual, lighting and integrated Experience Solutions across various industry sectors, offers exciting opportunities for manufacturers and distributors at the expo. Latest technologies in entertainment events, music production, audio video integration and communications, networking on IP, laser projection, interactive displays and intelligent audio are being showcased today, by leading brands in eight halls/zones spread out across BEC.

With PALM expo and AV Integrated Systems expo taking place concurrently in the same venue, we have created an excellent showcase, which allows various industry stakeholders to source all their integration and installation technology requirements under one roof.

In an effort to sustain and augment adoption of advanced pro audiovisual and entertainment events technology in India, both PALM expo and AV Integrated Systems expo, have designed excellent and meaningful learning opportunities through educational platforms comprising of seminars, certified trainings, workshops and discussions led by industry experts and business leaders with a vision.

No matter which country we come from, we are all members of an important fraternity who have gathered here together to strengthen the pro audio and AV industry with goodwill and better business.

I would like to thank all our exhibitors and our valued partners, at PALM expo and AV Integrated Systems expo, who have helped us launch this important platform. They have been instrumental in supporting ABEC Exhibitions & Conferences Pvt. Ltd. organize this expo and its accompanying features which include PALM Summit, PALM Soundscape Conference, DJ Championship, Indoor Line Array, IRAA awards, AV Integrated Systems Summit, CAVS Certification Programme, AV-ISE Education & Training Programme, AV-ISE Project Gallery Walk of Fame and many other. Thanks to all our exhibitors, the expo is today being envisioned as an important platform for the AV industry in India. As an exhibitor at AV Integrated Systems expo, you have played a role in defining the future of AV in India.

A heartfelt thank you to all our esteemed guests and each and every delegate at the venue, for taking time out of their busy schedule to attend this event, thereby contributing to its success. A complete schedule and agenda of things happening across the eight halls of the venue is available in the PALM and AV Show pocket guide available in the PALM expo and AV Integrated Systems expo registration counters. Our team is also available onsite to help in smooth participation. Feel free to reach out to them.

Last but not least, a huge welcome to Master Projection Designer, Bart Kresa, who has crafted unparalleled projection experiences around the globe. Today he is here with his awe inspiring SVIATOVID 2700 which he brings to India for the first time ever, to be showcased at the inaugural edition of the AV Integrated Systems expo. I thank Bart for choosing the AV Integrated Systems platform to showcase this breathtaking creation.

PALM 2018 was a grand success and set a high benchmark, in regards to visitor numbers and this edition, which is being organized concurrently with AV Integrated Systems expo, promises to be even better. We are looking forward to a busy and successful three days of the event.

I wish you all a great show and more business at the 19th edition of PALM and the inaugural edition of the AV Integrated Systems expo 2019.

Manish Gandhi  
Director & Chief Operating Officer  
ABEC | ITE



# Powered System



## AC-28 & MP-18B3

Two way Line Array Speaker & Powered Sub-woofer



## AC-210

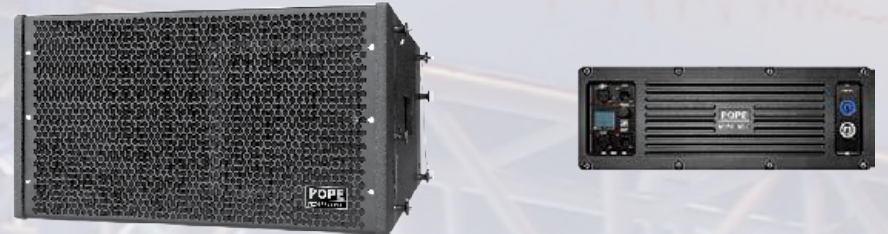
Two way Powered Line Array Speaker



*One World One Sound*

## AC-112

Two way Powered Line Array Speaker



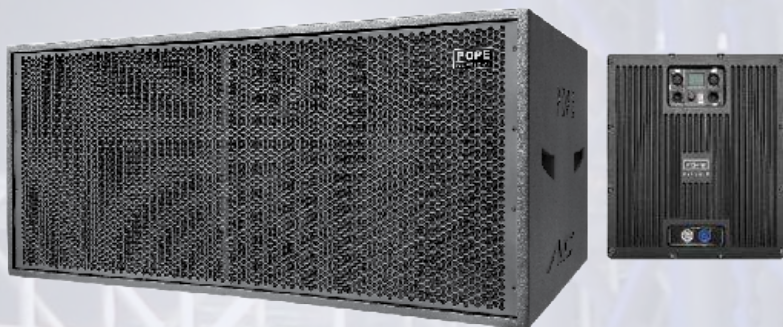
## AC-12

Three way Powered Line Array Speaker



## AC-218B

2\*18" Powered Horn-Loaded Sub-woofer



## AC-212

Three way Powered Line Array Speaker



## XP-SERIES DSP

XP-2060



XP-4080



## MAC-D SERIES POWER AMPLIFIER

MAC-7202D



MAC-8202D



## MA-D SERIES POWER AMPLIFIER

MA-7200D



MA-8200D



## POPE Professional Acoustics Limited

Corporate Office: No. 89, Rajiv Gandhi Nagar, Phase-1, 80 Feet Road, B.R. Layout, Sowripalayam, Coimbatore - 641 028, Tamilnadu, India. T: +91 422 4273556, M: +91 90428 22444, E mail: gm@pope-pro.com, www.pope-pro.com

Customer Care: 9944 222 444





**Anil Chopra,  
Director, PALM Expo**

## ***Anil Chopra: AV-ISE concurrent expo with PALM big opportunity to PA and Install sound to exploit System Integration***

PALM 2019 boasts of a concurrent expo this year. AV-ISE – Audio Video Integrated Systems Expo has been established this year, concurrent with PALM, creating the largest technology exposition in India, covering pro audio, stage sound and lighting, DJ equipment, studio post-production, AV install, PA equipment, and AV Integrated Systems technology. 350+ exhibitors, 27000+ visitors expected from across all regions in India converge. The show into its 19th edition-consecutive and successive-is building the pro audio and AV industry in India. Providing international manufacturers a neutral and independent, reliable entry into the Indian market very cost-effectively. Period.

I believe in delivering business at the show and have always remained focused in doing so, focused marketing, thus attracting over 25000+ trade visitors in 2018. This show attracts the entire supply chain, focusing on providing solutions to each business visitor. Welcome to the largest showcase of information communication [AV-ISE] and entertainment [PALM] technology. Period.

Please ensure you have all information on the three parallel conferences running in hall 1, 3 and hall 4. You don't want to miss an important session! Speakers are leaders in their profession and topics are meaningfully chosen to guide your business to the next level. Networking at these conferences, I dare say is priceless. Meet the movers and shakers of sound, light, audiovisual industry. Spread across approx. 30,000 sqm and 12 halls. Grab a copy of the show guide to make use of your three days at the show!! Find the product you might be searching for and info on all highlight features of the show!! We have a handy version too.

The IRAA awards on 01June in Hall 4 are at a breakthrough point. I thank Pramod Chandorkar at Sound Ideaz and Award Director, Mujeeb, and entire Jury. I haven't seen such sincerity and love for the profession. Period.

I'm so humbled at the gratuitous hard work and element of determination to find the right winner. I have planned to send out a loud shout "*Recording Engineers are artistes*". They're deserving of royalty from PPL It might be a tough fight, but then when the going gets tough, the tough get going. Tough Jury we have, and as Pramod said all that is needed is leadership. IRAA stands for 'Recording Arts'. Period.

PALM Sound and Light Awards too is amazing, in that global brands deem this award an honour. Indian industry rocks and whom we chose to get up on stage, this year at the Hyatt Regency on 31st May, award nite. [www.palmexpo.in](http://www.palmexpo.in) has history of those who have made their mark. Period.

DJ Champions we will choose in Hall 4 on 31 June too will rock. International doors and clubs open for our DJ Champion. PALM DJ Championship now has global following. I thank Reji, our Championship Director for believing. Period.

What makes this show great is the die-hard exhibitors who have kept the faith. These 19 years pro audio, pro sound and light, install audio, PA audio, DJ sound, entertainment electronics, trade has remained fascinated with global brands, marquee names that conjure up true tech and experience. Future speaks now to Indian industry to make in India as over 19 years of developing distributors and distribution time is now for manufacturing. Develop brands too! True tech is for the making.

I believe PALM AV-ISE is the platform to launch new product, showcase innovation to a learned audience, and thus make brands, as the huge participation of buyers, actual users, professionals, developers, manufacturers, attend year after year to define the market. Period.

Source your solution. Have a great show,

Cheers!

Anil Chopra,  
Director, PALM Expo



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**Ramesh Chetwani,**  
Exhibition Director, PALM Expo

### ***Ramesh Chetwani: The exhibition is a reflection of the pro audio and AV industry and the growth of these sectors reflects in the participation in the expo***

With great pleasure, I welcome all of you to the 19th edition of the PALM Expo India.

I also take immense pleasure to welcome all of you to the first edition of the AV Integrated Systems Expo (AV-ISE) 2019 which is held in Hall 3 alongside PALM.

PALM & AV-ISE together will be the most powerful exhibition for technology in India. The exhibition is a reflection of the pro audio and AV industry and the growth of these sectors reflects in the participation in the expo itself. Establishing itself this year, AV-ISE sets its foundation over a very strong and confident market. The market has kept faith in our platforms. We are thankful to all the participants in PALM and AV-ISE.

Over a period of years, PALM Expo has grown tremendously and has successfully delivered business to all participants on the exhibit floor. This year, along with AV-ISE, the exhibition has grown over 25%, adding more new exhibitors than it did in 2018. Make in India wave is evident this year; Indian brands in pro audio are emerging. The exhibition has improved greatly, PALM is larger this year.

Our intensive engagement of AV industry has resulted in core AV technology companies and brands exploring business with actual users and trade visiting the show.

PALM AV-ISE is an independent, neutral platform that has welcomed and encouraged and given strength to all companies whether multinational brand manufacturers or Indian distributors. This is the reason why the show is so dynamic and everyone feels happy to participate and be present at the expo this time of the year.

We welcome you once again to attend all the features.

The Indoor Compact Line Array Demo continues with **Milind Raorane**, a reputed acoustic engineer consulting the feature, is in its second year. There are five major brands participating. Line Array demo is very professional; the sound level is monitored with a SPL microphone ensuring a like-for-like demo to all participants.

There are three Conferences running parallel at the expo - PALM Sound and light Summit, AV-ISE Summit, and PALM Soundscape on stage sound and light. Industry leading speakers are participating. Conference program cover latest product technology and techniques

The HARMAN Live Arena that enthral the dealer/distributor community with the bouquet of Harman brands, will be hosted in its original location i.e. Hall 2 Annex.

This year the Demo Qubes enhances its avatar by improved acoustics and sound proofing. We have used the latest wood wool technology across all five Demos Qubes. Enjoy the new experience.

The 9th DJ Championships in Hall 4 will continue to enthrall the DJ Community. Fantastic prizes are to be won as well as assured celebrity status and worldwide acclaim.

Further sharing the Soundscape Hall 4 is the 13th edition of IRAA Awards ceremony recognising recording, mixing engineers.

With other features like the PALM Rigging and Trussing Workshop in Hall 2, the 3D Immersive Projection and Mapping, AV Projection Demo, Aurora IPBaseT Technology Certification course are in Hall 3. The CAVS course conducted by globally renowned Principal Instructor Ranjit Singh is in Hall 3. India's first CAVS experienced a tremendous response.

The biggest highlight at AV-ISE is Bart Kresa's Universal Spectacle projection mapping experience. Bart Kresa is the world's most leading Master Projection Designer. In 2014 PALM awarded Bart Kresa for Projection Mapping.

Have a fruitful business week and enjoy yourself at PALM AV-ISE.

Ramesh Chetwani,  
Exhibition Director, PALM Expo



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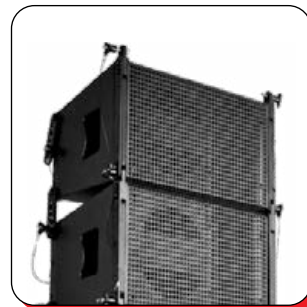
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## MEYER SOUND ROADSHOW

### An introduction to the world of Audio in India

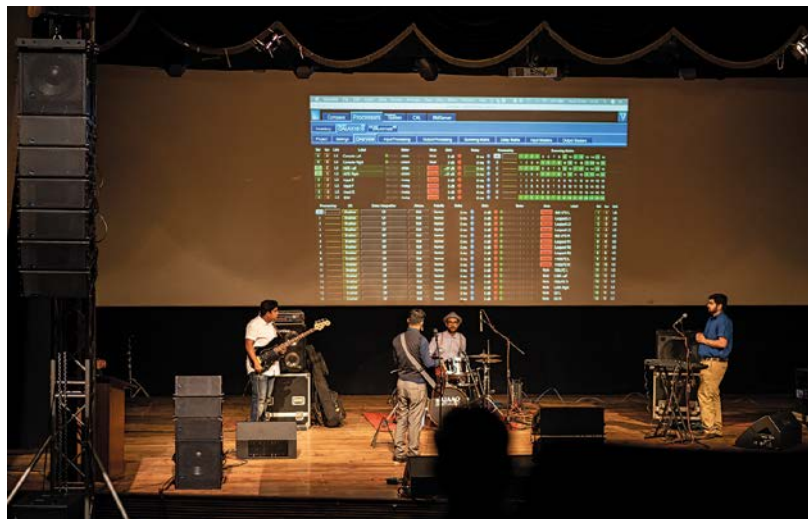
Sun Infonet, New Delhi in association with Meyer Sound, USA conducted a day long demonstration of their small but mighty LEO Family solutions featuring the LINA - very compact linear line array loudspeaker and LEOPARD - compact linear line array loudspeaker at St. Andrews Auditorium, Mumbai.

Sandeep Braganza, Meyer Sound

LEOPARD loudspeakers, were the very compact 750-LFC, 900-LFC and 1100-LFC along with MJF-212A stage monitors and UPQ fills on stage, all running on "Native Mode"

The demo saw a good turnout of both sound engineers as well as rental company owners who were all enthralled by the linearity,

The Sun Infonet Application Team consisting of Rohit Reddy, Tanmay Masurkar and Krishna Prasad were equally satisfied with the turnout & response that they received from their customers. "People have always known about Meyer Sound but had misconceptions that it is a complicated system to run and is expensive. Demonstrating the



Sound Engineers & Rental company owners at Meyer Sound Roadshow conducted by Suninfonet in association with Meyer Sound

Sales Manager-SAARC along with Rahul Samuel, Technical Support Specialist led the demonstrations. Accompanying the LINA and

consistent coverage & frequency response of both systems not only on playback, but also with a live band in performance.

systems with Native Mode, with absolutely no EQ, really gave our customers the confidence that the systems sound great straight out

of the box and they also realised that the overall cost-of-ownership is much lower than other systems in the long run"

## DIGICO REVEALS MUSTARD FOR QUANTUM 7

DiGiCo has revealed Mustard, a new set of algorithms and options for channel strip processing for Quantum 7 that offer enhanced flexibility and choice when extra control and creative adjustment is needed within a mix.

Making full use of the Quantum engine's new seventh generation FPGA infrastructure, the Mustard channel can be used in conjunction with the standard SD processing to add pre-amp, filters, EQ, gate and a

selection of compressor types to any existing channel strip.

The Mustard Tube options include a fully controllable Pre-Amp Modeler, which gives users access to every aspect of their front-end drive, while

the Mustard Dynamics include Vintage VCA and Optical compressor types that emulate some of the best-known devices available. All of this will enable users to add classic character and new textures to drums, bass,

vocals and guitars.

DiGiCo has also revealed the Spice Rack, which delivers additional new processors that can be freely inserted on any channel type in any position. Controlled from the Master screen and its worksurface controls, the first addition to the Spice Rack will be a six-band compressor, which includes two floating bands and allows complete, detailed control of envelope shaping for definable frequency bands.

"The beauty of having the most advanced FPGAs at the heart of our consoles is that it allows us to continually unlock new functionality," says Roger Wood, DiGiCo's head of software. "Both Mustard and the Spice Rack take the SD7 Quantum to a completely new level, not only opening up a new world of creativity for our users but assuring them that their investment will continue to deliver a return for many years to come."







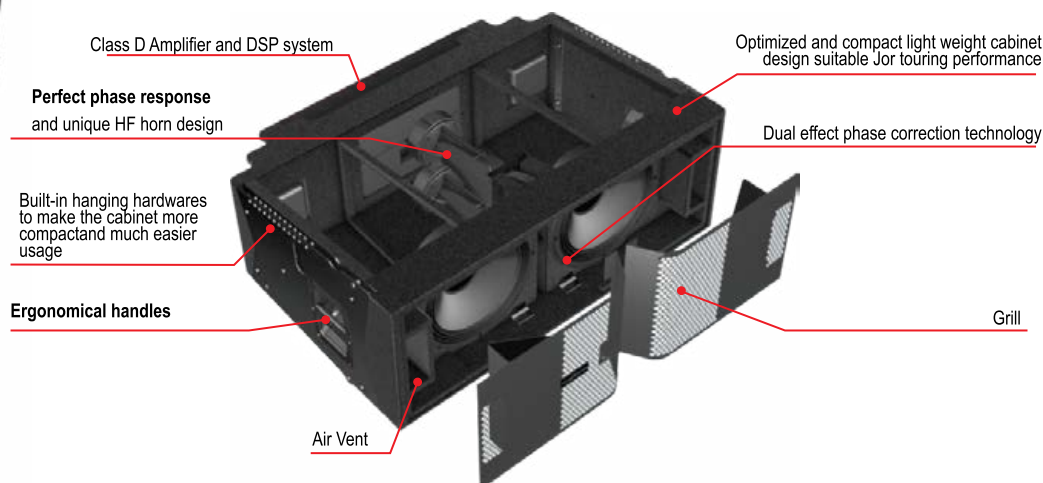
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### RCF EXPANDS FLAGSHIP HDL RANGE

RCF has announced the addition of to new **HDL 50-A 4K** and **HDL 26-A** to its flagship HDL range.

The HDL 50-A 4K active 3-way line array module is a higher-powered redesign of the original HDL 50-A, stated as having with 8,000 watts peak power (4,000 watts RMS) and being capable of delivering 143 dB SPL. It's equipped with dual 12-inch woofers, four symmetrical 6.5-inch midrange cones and two 2-inch compression drivers, joined by onboard FIRPHASE and RDNet networked management.

Current HDL 50-A's owners can upgrade to the 4K version by replacing the onboard amplifier.

In addition, HDL 50-A 4K comes with RDNet 3.1 providing enhanced management with control of every transducer, adjustments for humidity and temperature, bass shaping and other attributes.

Occupying the same footprint as the HDL 6-A, the new HDL 26-A is a compact, bi-amped active touring system for small and medium-sized applications. Each module is driven with a 2,000-watt class-D amplifier. RDNet and FIRPHASE are fitted as standard.

The HDL 26-A is equipped with two 6-inch neodymium woofers (with 2-inch voice coils) and a 1.4-inch titanium compression driver (with



3-inch voice coil). Enclosures weight less than 29 pounds.

The low-frequency flyable companion designed for the HDL

26-A is the HDL 35-AS, a 15-inch, active, flyable subwoofer HDL 35-AS, compatible with HDL rigging system and RDNet.

### POWERSOFT RELEASES COMPREHENSIVE TRAINING VIDEO SERIES FOR ARMONÍAPLUS

Powersoft has just released a series of training videos on YouTube for their best-in-class audio design environment software **ArmoníaPlus**. The hour-long set of tutorials comprehensively covers the new features that Powersoft introduced with ArmoníaPlus when it was released last October. Aside from educating new users on the software, the goal of these

tutorials is also to bring existing users who were familiar with its previous iteration, Armonía, up to speed.

ArmoníaPlus's redesign includes a single window interface with four main views and takes further advantage of intuitive hotkeys and simplistic icons to allow users to move between functions efficiently. Users can move through four main steps: Design, Config, Tune, and

Show, each offering a variety of functions and flexibility for different scenarios, as well as allowing users to audition different speaker presets easily. The YouTube tutorials cover all of these functions, as well as new features such as Shading, which allows the interface to reduce the gain of loudspeaker limiter thresholds coherently, keeping the balance between elements even if the system

is limiting.

"When we were designing ArmoníaPlus, we wanted to make the system easier to use and employ," said Powersoft US application engineer **Rick Woida**. "We also wanted to make certain that we were still supporting our users who work with Armonía and allowing them to learn the new features over time."

### HONEYWELL INDIA ENTERS PROFESSIONAL AUDIO MARKET WITH 'PROSOUND' SPEAKERS

Honeywell has announced its entry into the professional audio industry with a range of speakers – **Honeywell ProSound**. The exquisite range of speakers is aimed at enhancing the listening experience of the audience in the entertainment segment.

An extension of the Honeywell Public Address and Voice Alarm (PAVA) solutions, known for its intelligibility and durability, Honeywell ProSound speakers will enable the company to offer solutions to new verticals like hotels, malls, multiplexes, amphitheatres, clubs, educational institutions, and auditoriums. With the launch of this category, Honeywell becomes a complete audio solutions provider with an attractive combination of products, meeting internationally recognized industry standards that ensures superior sound, appealing design, high reliability, and excellent performance.

Speaking at the launch of Honeywell ProSound, Mr. Jasmeet Bhatia, Strategy and Marketing Leader, Honeywell Building Technologies, India said, "We are extremely excited to announce our first products into the Pro Audio industry with the launch of Honeywell ProSound. We are confident that the speaker range will prove to be the choicest offering for our discerning customers and its cutting-edge innovation, superior quality, uncompromising safety, and extraordinary sound performance, will resonate well with the industry."

The Honeywell ProSound range will be available in three series: **ProZeta**, **ProAlpha** and **ProZoe**.

The ProZeta series provides clear audio in easy-to-transport and set-up models, suitable for DJs and travelling musicians.

The ProAlpha range offers a series of high-definition speakers ideal for



clubs and high SPL (sound pressure level) venues, with high-quality amplification.

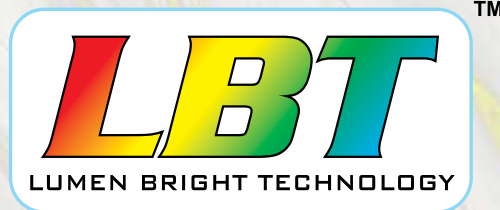
The ProZoe series features unparalleled sound quality with premium active line array technology.

Available in versatile cabinets designed to suit indoor or outdoor requirements, the ProZoe range comes with a 32-bit DSP processor and a software to maximize the built-in DSP engine.





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## NEW DELHI-BASED A/V RENTAL COMPANY AUDIO FACTORY PRIVATE LIMITED CHOOSES BOSE PROFESSIONAL SHOWMATCH SYSTEM

Leading rental companies continue to select ShowMatch as the system of choice based on its sound quality, compact size, selectable coverage patterns and

scalability – allowing ShowMatch systems to handle a wide variety of sound reinforcement applications. New Delhi-based Audio Factory Private Limited, India's largest sound

reinforcement, lighting and visual service provider for rental and touring projects has adopted a new Bose Professional ShowMatch system as a go-to solution for its rental clients.

it is very consistent. The audio quality does not diminish over time – which is exactly what I need to provide to our clients: a system that consistently provides clean, clear audio. We made the commitment to add Bose to our rental inventory. Since we started using our ShowMatch system, we have employed it on a wide variety of shows, from a government cultural program at India Gate, Delhi to a concert at the Grand Hyatt Goa in Bambolim, India, featuring Pritam, the multi-award-winning Indian composer, record producer and music director for Bollywood films. It is a very flexible system."

Bose ShowMatch DeltaQ array loudspeakers feature the most versatile DeltaQ design, optimized for permanent installations or portable applications, with field-changeable waveguides (offering 70/100-degree horizontal coverage) in compact enclosures that can form DeltaQ, constant-curvature, or "J-shape" line-array configurations. ShowMatch loudspeakers are available with 5, 10, or 20-degree vertical coverage options. An integrated suspension-hardware system allows for arrays up to 24 boxes. A matching single 18-inch subwoofer enclosure can be integrated for extended low frequency support.



Audio Factory Private Limited invested in ShowMatch as the system of choice based on its sound quality, compact size, selectable coverage patterns and scalability



Providing international-artist tours, Audio Factory's ShowMatch inventory currently consists of 96 modules in total – 48 ShowMatch line array modules and 48 SMS 118 subwoofers – sufficient to handle any sound reinforcement situation from small corporate gigs all the way up to stadium-size shows.

"When I first heard the system a few months ago, I felt the sound quality was extremely good," stated Vivek Vij, Director of Audio Factory Private Ltd. "I immediately compared ShowMatch with other systems on the market and then realized that the quality of the sound from ShowMatch was really amazing. You can listen to this system for many hours without fatigue – and

## SHURE TWINPLEX MINIATURE MICROPHONES

Shure has launched its **TwinPlex** new line of premium subminiature (5 mm) omnidirectional lavalier and headset mics. Designed to stand up to tough conditions, TwinPlex provides natural audio at both high and low frequency when professional vocal performance is a must. Its patent-pending capsule technology offers high-end sound in an easy-to-conceal package, ideal for quick costume changes or discreetly placed under wardrobe with no impact on sound quality.

The TwinPlex series consists of four lavaliers (TL45, TL46, TL47, TL48) and an ultra-light, fully-adjustable headset mic (TH53) in multiple colors with extensive accessories and

options. A unique dual-diaphragm omnidirectional design yields extraordinary off-axis consistency and industry-leading low self-noise creating lifelike vocal clarity and warmth.

Available in 1.1 mm and 1.6 mm options, the paintable cables are immune to kinks and memory effects, resulting in excellent flex performance due to an innovative spiral construction with redundant shielding.

**Shure TL45:** The TL45 lavalier mic is designed for theater applications and includes interchangeable caps.

**Shure TL46:** According to Shure, the high-sensitivity TL46 delivers additional volume and a high signal-



TL48

TL45

TL46

TL47

to-noise ratio.

**Shure TL47:** Shure advertises the TL47 as a universal option for many different applications. This model offers the most connector choices to accommodate a wide variety of

body-worn transmitters (LEMO, MTQG, MDOT, XLR, or none).

**Shure TL48:** The frequency response of the TL48 offers a mid-range boost designed for capturing dialogue in film and TV applications. This model has a fixed, non-interchangeable cap. The TL48 comes in three colors and with a choice of

connectors (LEMO, MTQG, MDOT, XLR, or none).

**Shure TH53:** The TH53 headset microphone features a Twinplex capsule mounted on an ultralight headset frame.



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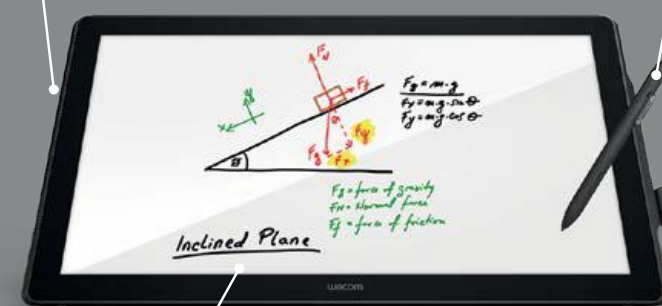
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Display	HD	HD	4K	HD	HD	4K	HD	HD	4K
Touch	no	yes	yes	no	no	yes	no	yes	yes
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# POPE PROFESSIONAL LAUNCHES LIVE SOUND PRODUCTS AT PALM EXPO

**POPE Professional Acoustics Ltd** which provides manufacturing, design and installation services to wide range segments which include places of Worship, Auditorium, Seminar Hall, Conference Hall, Discotheques and Live Sound will be showcasing a range of products at PALM Expo 2019.

The company is constantly innovating and launching a minimum of twenty plus new Products every year. Recently the company has developed a new **AC Series compact powered line arrays** and **sub-woofers** to attract sound rental companies.

For the installation and small segment sound reinforcement, Pope Professional has developed the **MP Series** multipurpose powered sub-woofers with two way and three-way

output to power up the full-range system.

Also, the news is the M Series Powered 12", 15"-point source coaxial monitors and TH-800 Series Powered full-range system for small indoor and outdoor events.

POPE Professional's Managing Director added that all of the speaker, sub-woofer cabinets, hardware, and drivers are Made in India under one roof, while not compromising on quality and following international standards.

For the aesthetic look and reliability of the products, POPE Professional is using SoundFlex Polyurea based environment-

friendly coating.

In the sound industry, POPE Professional is one of the leading brands in India, catering to the requirement for any application in the field of professional sound.

The manufacturer also announced a price reduction for its 19 model's speaker & sub-woofer beginning April 2019.



# L-ACOUSTICS ANNOUNCES NEW ARCS FAMILY OF SCALABLE RENTAL SOLUTIONS

L-Acoustics has launched its new **ARCS A15** and **A10 systems** and companion **sub KS21** deliver renowned L-Acoustics concert performance and reliability for audiences from 50 to 5,000 in an approachable, compact format that offers unlimited versatility and ease of use. With the launch of the new ARCS product range, L-Acoustics introduces a new charter

In commenting the design of the new ARCS products, Christophe Combet, L-Acoustics Director of Sound System Design, R&D enthusiasts, "The new ARCS family is a powerful concentrate of L-Acoustics technology, integrating best practices from

in capacity and knowledge, including via L-Acoustics training programs, the highly modular ARCS solution expands to accommodate larger projects.

A15 and A10 systems scale impeccably to events large and small: from weddings and galas, to the main system for a corporate event, theater, or mid-size festival stage with KS21 extending low

ratio extends to A15 and KS21, where one sub is recommended for each A15 enclosure. For A10, the recommended loudspeaker-to-sub ratio is 2-to-1. For further flexibility, ARCS also function seamlessly with LA12X amplified controllers.

A15 and A10 feature integrated rigging that make deployment efficient and secure. The unique, patent-pending flush rigging reduces the chances of mishandling and excessive vibration, enhancing both safety and speed.

"A version of ARCS has been part of the L-Acoustics product line since 1995," relates Christophe Combet. "It was the first loudspeaker reference to launch after V-DOSC revolutionized the industry. The philosophy behind the successive iterations of ARCS has always been to offer a superior, medium-throw, compact solution that is also easy to use. I am very proud that our new ARCS range raises the standard on all of these things in an impressive value-for-money package."

"We see the new ARCS line of products as the perfect way to welcome providers into the L-Acoustics rental network," shares Germain Simon. "The versatility and scalability of ARCS is really a 'choose your own adventure' scenario that only leads to happy endings. We look forward to seeing new customers approach the live events market in creative ways that allow them to capitalize upon their initial investment quickly and take their rental business to the next level."



agreement offering rental partners meeting the ARCS standard system requirements the opportunity to join the official L-Acoustics rental network.

The ARCS family comprises four constant curvature enclosures A15 Focus, A15 Wide, A10 Focus, A10 Wide—and a dedicated subwoofer, KS21. ARCS enclosures offer flexible coverage options, achieving a throw of up to 45 meters, and an impressive maximum output of 144 dB. Mounted on a pole, stacked, or flown in a vertical or horizontal line source array, the new ARCS family comprises modular, plug-and-play ease and international market acceptance. This versatile solution, with configurable directivity, scales with the needs of the event and venue.

across our entire product range and development history. Bended wood technology, inspired by our X Series, makes the new ARCS enclosures lightweight, yet incredibly sturdy. ARCS have configurable L-Fins for refining directivity. K2-grade speakers and drivers, the industry's best available components, deliver our unmistakable sonic signature. And KS21, our first 21" sub, will exceed expectations as the best compact subwoofer in the market. The system has built-in ease of operation, right down to the flush-fitting rigging for sleek integration."

Simplicity of design and deployment along with affordability, make the new ARCS range an ideal point of entry into the L-Acoustics network of rental partners. As new ARCS owners grow

frequency bandwidth to 30 Hz. At large events, ARCS become an effective fill or delay solution as a complement to larger K1 and K2 systems.

"The flexibility that can be achieved with this new generation of ARCS is unprecedented," explains Germain Simon, L-Acoustics Product Manager. "The mounting, stacking, and rigging options, combined with user configurable L-Fins to adjust waveguide directivity, gives users a plethora of permutations to work with."

The plug-and-play simplicity of A15 and A10 Focus and Wide extends to amplification. The enclosures were designed with LA4X capabilities and 1-to-1 ratios in mind. Each LA4X amplification channel pairs with one A15, one A10, or one KS21. The 1-to-1



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## STUDIOMASTER PROFESSIONAL SD 300 - A WARM DELAY EFFECTS PROCESSOR FOR THE INDIAN SINGER

For decades, many Indian singers and vocalists have been obsessed with finding the perfect delay effect for their performances. While experienced audio professionals can whip up a delay setting quickly, vocalists may not be able to do so with the same finesse. This is where the Studiomaster Professional SD 300 steps up!

The compact digital delay EFX processor is designed to be simple to use while delivering a rich, warm, and lush analogue sonic output. At the heart of the processor is a specially-designed DSP chip that delivers a coveted delay output. Users get the

option to set the delay time and repeat control to come up with a variety of effect options on-the-fly along with the ability to bypass the effect quickly.

The SD 300 features two professional-grade 1/4" unbalanced switchable Mic/Line inputs and mix output. The processor sports individual level controls for the inputs and effect output. The unit can be powered by a +12V DC adapter or standard +9V DC battery, making it ideal for a host of mobile applications. Thanks to its optional battery-operated design, the unit also acts as a compact mixer in applications where conventional power supply is simply not possible.

Sporting an elegant electric blue paint finish, the delay effects processor has a compact build size for easy portability.

Striking a right balance between high-quality performance and cost-effective pricing, the SD 300 is sure to resonate with both professional and upcoming vocalists and musicians. The processor is ideal for a variety of singing, musical, and vocal applications in live, touring, mobile, and public address scenarios. The SD 300 is readily available at authorised Studiomaster Professional outlets across India. For more information, you could email us on [info@](mailto:info@audioplus-india.com)



[audioplus-india.com](http://audioplus-india.com), message us via WhatsApp on +91-8879028079 or visit <http://bit.ly/SD300>

## MANLEY LABS INTRODUCES DUAL MONO MIC PREAMP

Manley Laboratories has announced a special Limited Edition run of their classic Dual Mono Microphone Preamplifiers with special blue & black cosmetics,

in honor of the company's 30th Anniversary.

Manley's current equipment lineup is designed with more modern, efficient manufacturing

techniques in mind, the Dual Mono Mic Preamp comes from an era where products were painstakingly built in a decidedly old-school fashion. "There are a tremendous

number of American labor-hours required to hand-wire each Dual Mono Microphone preamplifier," says company President **EveAnna Manley**. "But because we are in the audio business – always listening! – we have decided to celebrate our 30 Years of Manley pro audio production with a run of these classic cornerstone products."



## EM ACOUSTICS UNVEILS HALO-B SYSTEM

EM Acoustics has unveiled **HALO-B system**. This third system in the HALO family is a medium format, 110° horizontal dispersion line array for indoor and outdoor sound reinforcement. As its name suggests, HALO-B sits between HALO-A and HALO-C in both physical size and overall system output, and as such is perhaps the most versatile system in the family.

Built on the same 'maximum headroom' design principles as HALO-A to ensure consistent performance across all SPL levels and consistent horizontal dispersion pattern across the operating frequency band, HALO-B is a two-way reflex-loaded medium format line array element featuring a patent-pending proprietary HF emulation manifold which combines the energy of four 1-inch compression

drivers into a plane-wave array. These are flanked by two 8-inch LF drivers in an optimally tuned, lightweight, ported enclosure. The bi-amplified design results in only a single crossover point, which in turn translates into reduced amplifier channel count and more efficient use of amplifier power.

Continuity of voicing is preserved across the entire HALO series, enabling HALO-B's use as a companion system to either the large format HALO-A, or the compact HALO-C systems in addition to stand-alone main PA applications. Festivals, stadia, sports arenas, performance venues, houses of worship and corporate AV events are all ideal candidates for HALO-B, designed to be equally comfortable in both fixed installation and mobile applications.

A tough, weather- and impact-

resistant polyurethane coating and a touring-friendly, ultra-high tensile steel 3-point flying system with quick-release pins complete the package. Finally, HALO-B is matched with the ST-215 flyable dual 15-inch subwoofer and packaged with Dante-enabled DQ Series amplifiers or the flagship DQRack

EM Acoustics operations director, **Mike Wheeler** is categorical about the company's latest release: "HALO-B is simply the best product we've ever made."

Wheeler attributes this to a number of factors: "Firstly, we were successfully able to scale the technology used in HALO-A; this isn't always possible, but when it



it can bring huge benefits. For example, the high frequency manifold technology that we developed for HALO-A if anything, performs even better in its scaled-down HALO-B implementation. Secondly, HALO-B is an ideal size for so many applications, either on its own or accompanying something else – we feel it will be a really useful tool for rental companies looking for maximum ROI. We are looking forward to seeing HALO-B put through its paces on tours and events throughout the summer."





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# HARMAN PROFESSIONAL SOLUTIONS HOSTS JBL VTX LINE ARRAY CERTIFICATION WORKSHOP IN INDIA

HARMAN Professional Solutions, global leader in professional audio, video, lighting, networked AV and control systems hosted VTX line array training and certification course for Indian touring audio professionals at **Chitrarth Studios Powai**, Mumbai on 27th – 28th April 2019.

The Certification course was free of cost for all who registered for the event and included training on the VTX speaker elements, VTX suspension and handling, BSS Omnidrive HD DSP and presets, Crown iTech HD amplification, VTX Control via JBL HiQnet Performance Manager, VTX modelling including line array theory and calculations, and hands on practical use and preset listening utilizing our in-house JBL VTX array and Crown iTech HD V-Racks.

JBL VTX Trainer, **Eric Stahlhammer** conducted this intensive two-day workshop and trained each participant to implement A12 and other VTX systems with great success. The course covered an in-depth line array theory, coupled with hands on practical use of JBL VTX array and Crown iTech HD V-Racks.

With over 65 participants attending the two-day training program, the event was a huge success. Commenting on his experience with Indian touring professionals, Eric Stahlhammer said, "It was terrific to have such a large group of professionals who are committed to learning more about the latest and greatest systems. JBL's commitment to constantly developing new tools and technologies was well met with hungry and committed industry minds. The class was very successful



**Eric Stahlhammer, Product Manager, Performance Amps and DSPs, Sales JBL Professionals with Shekhar Kusuma, Sound Engineer and Prashant Govindan, Sr. Director, India and SAARC, HARMAN Professional Solutions.**

**VTX line array training and certification course for Indian touring audio professionals at Chitrarth Studios Powai hosted By HARMAN Professional Solutions attended by 65 participants**

hands-on training on touring sound from industry experts, including configuration, rigging, tuning and mixing for big gigs. At the end of the recent 2-day intensive VTX training workshop, each participant walked away with a deeper understanding of the JBL touring sound ecosystem with a hands-on experience of rigging, configuration and tuning. Based on the overwhelming response and feedback we have received, we will be rolling out more of these master classes in the coming times targeting various geographies in addition to our regular training modules in the country" said Prashant Govindan, Sr. Director, India and SAARC, HARMAN Professional Solutions.

and I hope we can continue to do these and serve to advance the skills of engineers everywhere."

"We at HARMAN Professional India have been conducting advanced

training classes for touring audio professionals for several years now and each time we have received a phenomenal response. These classes are designed to deliver

## PROFESSIONAL WIRELESS ADDS NEW QUAD DISTRO UNITS TO ALPHA SERIES LINEUP

Professional Wireless Systems has announced the addition of the **1RU Alpha Quad-4** and **2RU Alpha Quad-8** to the Alpha Series, which was introduced earlier this year.

The Alpha Quad-4 and Quad-8 are designed for use with multiple Shure Axient AD4Q receivers in Quadversity mode. The units provide four individual unity-gain signals (A, B, C, D) to up to four quad receivers, with RF filtering at 470-616 MHz Power is

supplied to the units with either the main or the Aux inputs or used at the same time for redundant power.

"The Alpha Quad distros serve as the 'head end' for the receive antenna system," explains Professional Wireless Production Manager Justin

Van Winkle. "Four antennas can be connected to the rear-panel input connections. The RF signals are then filtered, amplified and split into four (Quad-4), or eight (Quad-8), outputs per unit."

The Alpha series features products

designed to offer users the same durability and reliability that Professional Wireless products are known for with the features necessary

to get simple jobs done smarter and more efficiently – at a price point that fits everyone's budget. The new Quad distros will be an invaluable addition to users of the Shure Axient digital microphone system everywhere.

"These products fill a need in the industry," concludes **Van Winkle**. "The Alpha Series is a cost-effective product line that offers the features users need every day without the expensive bells and whistles. You will see the introduction of more Alpha Series in the months ahead."







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## ALTO PROFESSIONAL LAYS DOWN A ROCK-SOLID FOUNDATION WITH NEW TS3 SERIES POWERED SUBWOOFERS

Alto Professional has announced the introduction of their **TS3** family of high-powered subwoofers, the TS315S and TS318S. The new subwoofers extend the bass response of Alto Professional's highly successful line of TS3 full-range speakers, resulting in systems with stunning wide-range response characterized by dramatic, impactful low frequencies and soaring, transparent midrange and highs.

There are times when even the best sound systems need additional low-frequency output and "punch." For those situations, Alto Professional offers their new TS315S/318S powered subwoofers. These subwoofers extend the bass response of virtually any full-range speaker, relieving that speaker of the difficult task of having to reproduce the low bass frequencies. When using these new subwoofers, the listening audience will hear everything with perfect clarity, from the lowest bass synth tones to the highest percussion bells and everything in between.

Both subwoofer models feature

a rugged, long-excursion woofer mounted in a solidly braced ported enclosure, computer-optimized for powerful low-frequency performance. The enclosures themselves are made from a dense wood composite. This strong, resonant-free material has virtually perfect acoustic characteristics, which ensures that the subwoofers' output is always clear and impactful. Conventional enclosures with flex-prone thin metal or plastic walls actually rob the speaker of acoustic impact by dissipating the driver's energy as cabinet vibration. A sturdy, braced wood composite enclosure doesn't waste the driver's motion as cabinet resonance.

Strong, clear output is only half the battle, however. In order for a subwoofer to be part of an ideal speaker system, it has to blend seamlessly with the companion speaker. Here, Alto Professional TS300-series subwoofers excel like none other. These subwoofers have a choice of six selectable DSP output modes, so the subwoofer's



frequency response and crossover frequency are perfectly matched to the speaker it's being used with. Four of these six output options match the subwoofer perfectly with Alto TS2 and TS3 full-range speakers, while the other four output options ensure a perfect match even with non-Alto full-range speakers. For the ultimate in system configuration flexibility, users can also choose Hi-Pass or Bypass mode.

Alto Professional's computer design techniques feature advancements such as Finite Element Analysis (FEA), which enables them to optimize the speaker's magnetic

structure and maintain a tight voice coil gap for maximum sensitivity. Alto's voice coils themselves have extremely tight windings that ensure maximum utilization of the input signal and the adhesives exhibit unrivaled consistency and durability under high temperature conditions for unsurpassed system reliability. Both subwoofers have an on-board 2000-watt amplifier (1000 watts continuous) with proprietary limiting circuitry that provides electronic clip, thermal and transducer overload protection, ensuring that the system always sounds clean and clear, no matter how hard it's pushed.

## STUDIOMASTER PROFESSIONAL LAUNCHES THE VERSATILE H 510 ACTIVE LOUDSPEAKERS

The H510 from Studiomaster Professional is a high-quality 2-way Bi-Amplified design active loudspeakers. Housed in a high-endurance plastic mounded enclosure, the speaker incorporates a 15" LF woofer driven by class AB amplifier and 1" HF compression driver powered by a class H amplifier. The result of this carefully-engineered combination is a powerful 400W (RMS) is amazing clarity, detail, and throw distance. The speaker is further optimized to deliver a frequency response between 50Hz-20kHz and a max SPL of a whopping 130dB despite its compact build size. Additionally, the specially-engineered HF flare

weaved into the design ensures an even dispersion with a wide coverage area.

One of the standout features of the H 510 is the built-in USB/SD card MP3 media player with playback control, Infrared (IR) remote control, and Bluetooth for wireless streaming from compatible smart devices such as smartphones, tablets, and laptops. The powered speaker integrates 2 switchable mic/line combo XLR-Jack inputs and an XLR out for linking additional loudspeakers. Basic tone control can be achieved using the 2-band fixed-frequency equalizer on the rear panel. The integrated soft clip limiter circuit not only ensures distortion-free sound but also optimal

speaker protection.

The unique shape of the H 510 makes the speaker useful for both FOH and floor monitoring applications. The integrated mounting socket on the bottom panel allows seamless installation on standard wall/pole mounts and speaker stands. The speakers' ergonomically-shaped handles allow utmost ease in transportation. Packed with features, the powered loudspeaker is ideal for a wide variety of live, touring, installation, and other mobile applications.

The H 510 is readily available at authorised Studiomaster Professional outlets across India.



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# THE NEXT DIMENSION OF STAGE PRODUCTION

*Electrocraft delivers outstanding immersive entertainment experience with dynamic automation solutions and spot on sound reinforcement at Filmfare Awards 2019*



Popularly referred to as India's equivalent of the Academy Awards; the 64th edition of the Filmfare Awards, presented by The Times Group, continued its legacy of honouring artistic and technical excellence in the Hindi film industry of India, through an elaborate ceremony hosted on 23rd March 2019 at Mumbai's

iconic Jio Gardens.

The event this year proved to be a visual and aural spectacle as the show witnessed a slew of breathtaking performances, ably reinforced with state-of-the-art professional entertainment technology, with one of India's foremost rental outfit – **Electrocraft** – commissioning the spectacular

Shahrukh Khan makes a grand entrance in a magnificent looking moving 'Cocoon' which essentially comprised revolving rings that travelled on stage along a rolling platform, controlled remotely through automated panels





The electrically powered custom-made double revolving stage with inner and outer rings. The stage has both an inner and outer revolving ring, which operate independently of each other with adjustable rotation speed. Both rings can revolve clockwise and counter-clockwise, one at a time, or both at once. Inset pic shows dancers positioned in clockwise and counter-clockwise directions.

sound architecture, trussing and automation solution for the gig.

## Stage Automation

Electrocraft played a key role in ensuring that the magic created on stage by celebrities and their stellar perfor-

mances, was efficiently delivered by using a comprehensive system of automation solutions, which were deployed with great precision. Megastar Shahrukh Khan made his grand entrance on stage in a magnificent looking moving 'Cocoon' which essentially comprised

revolving rings that travelled on stage along a rolling platform, controlled remotely through automated panels.

Another key highlight involved a breathtaking on stage performance that took place on a 'floating' platform, which was powered through state-of-

the-art hydraulic lifts and again, was controlled remotely. The team also installed on stage, a slew of variable speed controlled large frame travellators and a massive Turntable section with two individually controllable rings – both of which played a key role in dance performances by various Bollywood celebrities. Additionally, high speed fully automated and individually programmable Movecat motors enabled the upward and downward movement of the six massive LED screens, making the show even more flamboyant in its visual appeal.



Movecat motors enabled the upward and downward movement of the six massive LED screens on stage





Yohan Fernandes at the Avid VENUE | S6L

## Sound Reinforcement

Electrocraft also lived up to its reputation as the country's leading live sound specialists, as they deployed an elaborate audio infrastructure with the primary system comprising an all L'Acoustics solution wherein the K2 system formed the FOH, while the dV-Dosc systems formed the In-fill and Out-fill systems, along with the Arcs system covering the venue as side-fills. Multiple units of SB28 subwoofers and KS28 subwoofers provided the crucial low-frequency fidelity that rocked the event, with amplification of the entire system provided through multiple units of power amplifiers from L'Acoustics. Owing to the massive expanse of the venue, the team also deployed an additional delay system comprising multiple

elements of the Y-series line array modules from d&b Audiotechnik. The team worked tirelessly during setup to ensure perfect alignment and tuning of the entire loudspeaker solution as a whole, which ensured that the audience experienced an almost ambisonic soundscape that was in perfect harmony. A slew of top-notch wireless systems from leader brands Shure and Sennheiser comprise the microphone solution, with the ULX-D wireless system from Shure and the D6000 wireless microphones and series 2000 IEMs from Sennheiser rounding up the solution. Multiple numbers of headset microphones from Roger Drego's signature series of products were used by performers and presenters during the event. Additionally, the team also ensured that the same impeccable sound experience was normed

backstage as well, as they deployed multiple units of loudspeakers from Roger Drego's signature series of products to act as green room speakers and backstage monitoring. The VIP room was reinforced with a neat and compact EVOX system from RCF. At broadcast position, the team deployed the sleek and efficient S6L-24D console from AVID along with multiple numbers of Rockit 8 near-field monitors from KRK.

Commenting about the sound experience, a Filmfare spokesperson commented, "Filmfare is all about lineage and a rich history of recognizing the

best. Naturally, we would only settle on delivering the best experience to our audience; which is why we chose to work with Roger and his team at Electrocraft. And we must say, they absolutely lived up to all our expectations. The sound experience was absolutely fantastic and extremely captivating. And to add to it, the brilliant work that they commissioned with the automation of the moving stage elements – that was amazing. Their hardwork and skill helped bring the show to life and make it magnanimous – true to Filmfare's legacy!"



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Roger Drego Backstage during Rehearsals





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*The more than seven-decade-old **Famous Studios** at Mahalaxmi, one of the film industry's oldest and iconic studios, has come a long way since its inception in 1946. Famous has invested substantially into its studios over the years and the PT team met up with **Anant Roongta**, the third-generation scion, now at the helm, to find out how the company is playing the long game by rolling the dice with unique services and solutions.*

*As expected, Roongta spoke about Famous Studio's future plans including the company's upcoming co-working space and how it fits in with the company's three main philosophies - invest in technology, do not overcommit and help make great content. **Smita Rai** reports on the fresh energy and perspective being rapidly induced into the family business.*



Anant Roongta (l) with his father Arun Roongta

# THE FAMOUS STORY

**A**rmed with a degree in Marketing and Finance and International Business from University of Strathclyde in Glasgow, and Aston University respectively, and after learning the dynamics of the Indian business world at Fanatic Sports and GVK, Anant Roongta decided to enter the family business at Famous Studios.

As he takes us around the never-ending corridors of the Famous Studio building at Mahalaxmi explaining his future plans for the company, it is

evident that he is working towards achieving a larger long term goal and set the company up for bigger payoffs down the road.

There is a lot of history, legacy and talent that has come out of the Famous Studios building in Mahalaxmi. The family philosophy of making big and early bets on new technologies and not restricting themselves to being just another studio, helped Famous get a head start in the industry. "The drive to continuously succeed in every generation and every era of the filmmaking

business stems from a certain ethic that has been instilled by my grandfather **Jagmohan Roongta** and my father **Arun Roongta** – the ethics of introducing the latest technology and offering all stakeholders a chance to achieve their dreams. In 1946, when we first set up Famous, my grandfather decided that this has to be the first air-conditioned studio in Asia. Famous was one of the very few professional studios available at that time where one could come and shoot in the comfort of an air-conditioned ambience and it was a big

deal at that time. Moving forward we invested in the Mitchell-camera, which was globally a very well know brand at that time. For us to be entrenched in this business, it was important that we presented more offerings to the market. We first set up the camera department and then the film processing laboratory in the 1970s and we started producing feature films. This was followed by set construction and eventually in 1985, we applied for a digital video services license from the I&B ministry, which we got, and became one of India's first





post-production houses. In the period between 1960s and 1980s, we had everything one could offer under one roof here in Mahalaxmi," he says.

The advent of the digital age necessitated that the studio re-explored and reinvented the entire value chain. The studio collaborated with companies like Autodesk, Spirit and Arri. In early 1992, Famous entered the sound recording business with the birth of Galactica, which was one of India's first international grade sound recording studios. This asset has served the company well, as now Famous has expanded to four sound facilities, including the recently licensed Dolby Atmos 7.1.4 HE home facility.

It's fair to say that Famous was technically one step ahead, propelled largely by the guidance of core family values. "Though we have continuously invested in people and technology, we have never overleveraged. We have always invested and expanded in our own capacity. We have never raised any debt which we have not been able to service. It's always been a philosophy with my family to only invest in as much as you can, which is the reason why many other studios have come and gone but we have gradually expanded and now we are offering services, which no one in India is," says Roongta.

Not all of Famous' bets have reaped rich rewards though. "In the early 2000s we also set up an old film restoration division. Thought it wasn't very successful we did restore films like Sholay and Mr. India."

## FUTURE TECH AT FAMOUS

Today, Famous is laying emphasis on future tech, inspite of some who are at odds with the company's business model. The studio has expanded into

offering high end production services such as *Motion Capture*, *Phantom Flex tabletop production*, *Dolby Atmos audio mixing* and a brand new creative *Co-working space* called The Famous Working Company which is due to launch in June this year. "As a third generation member who has entered the business two years back, I have the opportunity and am focused on developing the business for the next generation," enthuses Roongta.

### Motion Capture:

Famous recently collaborated with Centroid UK, a pioneer and leading Motion Capture facility based out of Pinewood Studios in London who have worked on major Hollywood projects, films and AAA games such as Spectre, Guardians of the Galaxy, Planet of the Apes and Assassin's Creed. As part of the JV, Famous has setup a dedicated studio in Mumbai to build an international grade mocap studio, spanning over 1500 square feet, that houses technologies capable of producing live on set capture, virtual production, cinema layout, crowd simulation and facial as well as body animation services making it India's first end-to-end Motion Capture Lab.

"We had the existing technology and all we had to do was reinvest and have it up and running for the next generation of producers. Motion Capture enables live capture, and makes it very easy

for an animator to add a live character on the captured data which adds a different level of realism. It opens up a big opportunity for the gaming industry too. This technology offers solutions to different industries in media and entertainment. The benefit for Famous is that our visual effects team, *Famous House of Artists* gets an opportunity to explore, learn and create characters which can be offered to clients as part of a complete workflow."

Internationally, Motion Capture has contributed greatly to film-making & gaming, through films like 'Guardians of the Galaxy', 'Godzilla', 'Ant-Man', 'Mad Max' and 'Assassin's Creed'. Bollywood however has not really embraced it though the South Indian movie industry has already. "Stakeholders in Bollywood are yet to embrace this technology. They probably feel it's going to cost them more, but they don't realize that

they save a lot of time. Saving time is far more important than money because you will eventually save money, if you save time."

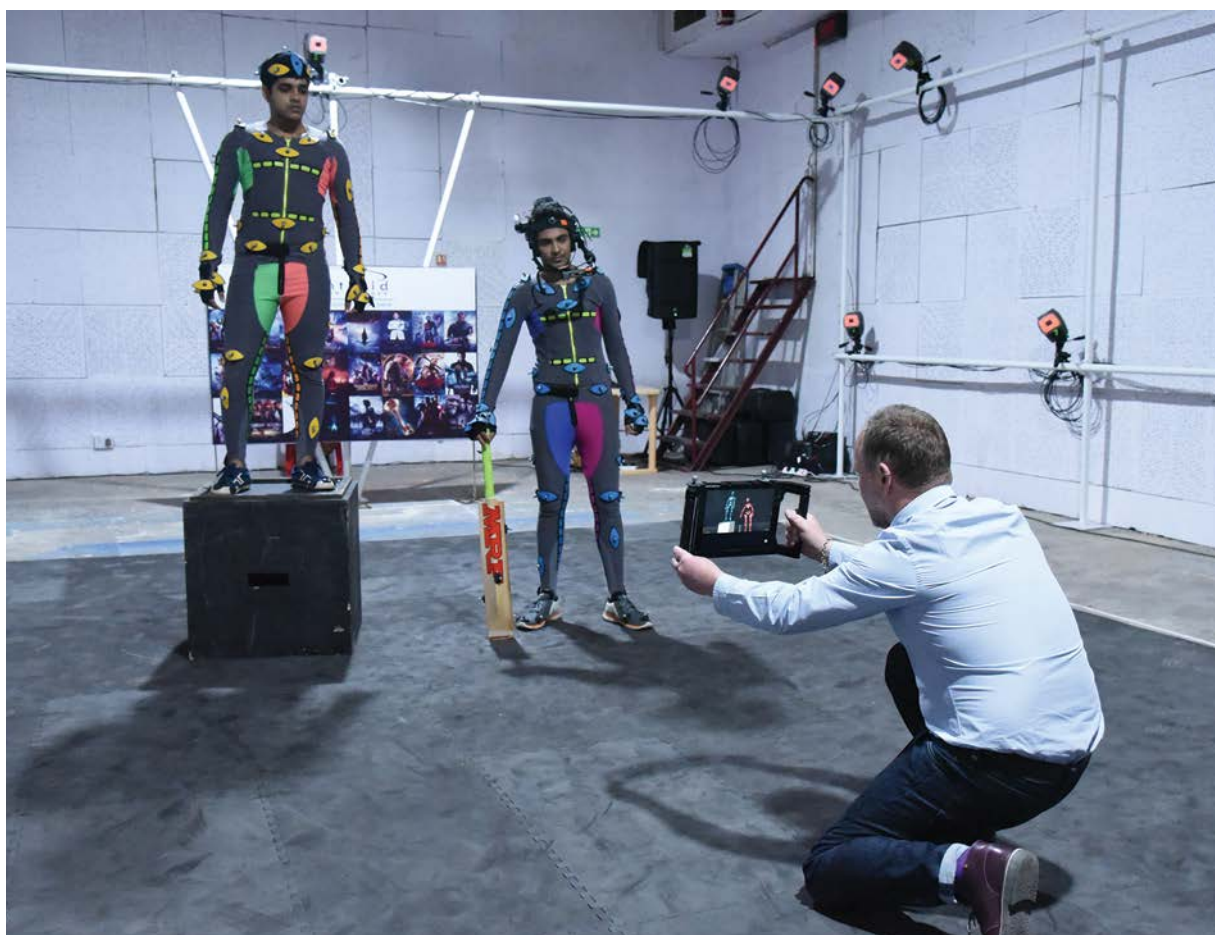
### Co-Working Space:

Also on the cards for Famous, is the ambitious co-working space business, which will offer current and next generation of creative professional access to a world-class office space in addition to the studio's existing production and post-production infrastructure. By offering the entire content services value chain under one roof, Famous hopes to add value to the industry and cement their name as India's leading creative hub. "This is going to be a game changer for Famous because there is no space in India where there is a co-working space clubbed with a studio and access to facilities and leading talent. We are opening a 140-seater next month



Famous Studio's Founder - Mr. J.B. Roongta (r) at the BBC Studios in London in 1961 for an interview on his contribution to Indian Cinema





**The international grade mocap studio, spanning over 1500 square feet, housing technologies capable of producing live on set capture, virtual production, cinema layout, crowd simulation and facial as well as body animation services making it India's first end-to-end Motion Capture Lab**

here at Mahalaxmi and it's expandable to 400 seats once the space fills up, which we believe it will in a couple of months. We have named it the Famous Working Company so it resonates. We want to invite companies in the media and tech space who are working across the board, across different industries to come in and use this space. Through a

facility like Famous, we offer a workspace and a chance to collaborate and use the facilities at much discounted rates," explains Roongta.

#### **Phantom Flex Tabletop Production:**

Famous launched a Phantom flex visual lab in 2018. "We have been suc-

cessfully working with agencies and producers on creating stunning visuals for their brands. Our in-house team of experts and engineers work closely with our clients to produce high quality visuals. A great output can be achieved with the Phantom camera and we have a whole set of lights, rigs and post-production that go with it."

#### **Dolby Atmos Studio:**

Famous Digital recently joined the elite ranks of facilities globally with a state of the art Dolby Atmos 7.1.4. HE room. The former Galatica A control room in Famous' Santacruz facility, has been converted into a 7.1.4 Dolby Atmos HE certified mixing room. The new studio boasts a custom-built Dynaudio Acoustics M3 monitors, 18" subwoofer and Dynaudio surround and overhead speakers, Dolby recommended LG C8 4K HDR 65" monitor with Dolby Vision, Genelec nearfields, Avid S6-M40-32 fader console with dual Avid MTRX interfaces connected to a ProTools HDX|2 system, running 128 channels of MADI, 16 AES/ EBU, and 24 analog IO simultaneously. The studio also flaunts a certified hardware Dolby Atmos HE Renderer and the custom-built Argosy table by AVS in Germany. *Full Story in Mar-Apr issue of PALM technology, pg. 30.*

"We have gone ahead and secured the MPAA compliance, an integral ingredient for any post studio and haven't left an inch in terms of investment. Everything is state-of-the art in this studio and I have very high expectations. I feel we should be able to get the entire ROI within 3-4 years and this is not an optimistic estimate, this is a very realistic estimate," asserts Roongta.

When queried if the saturation of recording studios in Mumbai poses a challenge and his take on balancing the investment in a recording studio, Roongta says, "The past few years has seen an explosion of new recording studios. Some of India's leading creative sound designers and sound engineers have set up their own shop. The challenge is definitely there, but for Famous, along with the audio services, we also have the opportunity of offering the video services as a package deal. Famous is more of a one-stop shop solution. Sound is an integral part of an experience. The next big technology is going to be immersive media so at the end of the day, our technology has the capability to complement the visuals. Yes, in today's scenario, to invest in a big studio in Mumbai may not be easy simply because of prohibitive overheads. That being said, with the introduction of 5G and cheaper devices, the business and demand for content will only grow and there will be a requirement for state of the art sound studios"

#### **Feature Film Production:**

"For the first time in over 10 years, we are betting big on IP and production with a feature film. It's a 90 minute feature on a very relatable topic with Kirti Kulhari, Nivedita Bhattacharya and Medha Shankar in lead roles. Kay Kay Menon plays a cameo as well. We are looking to invest in content and build



**The former Galatica A control room in Famous' Santacruz facility converted into a state-of-the art 7.1.4 Dolby Atmos HE certified mixing room**



our own IP. We have stayed away from producing films because of the nature of the film industry but this time around the right people have backed us. The movie is scheduled for a July/August release."

In the last decade alone, Roongta admits to having invested in the range of 25 to 30 crores plus, which includes buying property, continuous upgrade in Visual effects facilities, overhaul of Color Grading/Online Editing facilities, the recent Dolby Atmos studio, investment into content security like MPAA compliance and now the Co-working space. "Although it may not sound very high as compared to some other global studios out there, we are proud that 80% of our investments have been successful and this again goes back to our philosophy of not overcommitting. This investment is just in technology and space. I don't even know how much money has been reinvested into this building to maintain it. That's a separate investment altogether," he says.

With Roongta moving in so many directions at the same time coupled with the grand scale of the ambition, selling the plan to the family must have been complex. Difference of opinion in any business is inevitable and Roongta admits wrangling with his father, though

“ Although the story remains the same, the writing has changed. ”

he believes that the advantages of being in a family run business far outweigh the disadvantages. "At the end of the day, he has so much more experience. I would say there are a lot more advantages than disadvantages. You naturally get a lot of mentoring from your seniors and the team that builds around the family business becomes a family, so that's key. The team is a very close-knit team with some of them having more than 25 years of experience. They have all started their careers at Famous. Many of the team members have seen me grow up and they see more similarities between me and my grandfather and my father. Our team meetings are very casual but highly productive. I see potential in our team and my informal management style has propelled every team member to act as a leader. We set targets and then reflect on performance in order to make certain adjustments. There have to be certain management elements which are corporatized but the family owned business aspect adds a lot of freedom," he explains.

## FUTURE VISION

Going forward, the company plans

on introducing an incubator for the Media and Entertainment industry by adding labs, live demonstrations, masterclasses, education and investment opportunities to for upcoming media and tech companies. By hosting master classes and inviting the best speakers in the industry to talk about their experiences, the incubator service would provide tech-savvy and creative companies or individuals an avenue to convert their ideas into a proper business. Mentorship would also be an integral part of the incubator and eventually Famous would like to host events where companies can pitch to corporates for investment.

"It is very important to reinvent, offer the best and maintain the legacy. It is very easy for the legacy to fade away. There have been a lot of significant changes in terms of the company structure ever since I entered the family business two years back. It is operating differently because we now have team strength of over 250 creatives. Earlier, we worked out of Mahalaxmi, but now we have five facilities in Santacruz. Although the

story remains the same, the writing has changed. I'm adopting a different approach in terms of hiring talent. In the 1990s and early 2000s when the post business was really picking up, we focused our

recruiting based on experience, but now I'm changing my approach by hiring graduates and young professionals who are keen on learning, exploring and adding value to our business. They blend into the culture and it's already proving successful," he says.

"My main vision is to give back to the community through the workspace, through mentorship, incubation and training. Secondly, we want to scale up our VFX offering because of the huge demand. My aim is in the next five years to have a team of at least 400-500 people in our VFX team constantly churning out work for all platforms, whether it is OTT or feature films or TV commercials. Last but not least, my dream is to reenergize the original Famous Studio building which saw a massive slump when lot of people moved to the suburbs. We still have producers calling Famous their home. That's a very big takeaway for me. I want the next generation of talent to work out of Famous Mahalaxmi and bring it back to its erstwhile glory," he concludes.



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# FIXINTOGETMIXIN with Brad Divens

Long before Brad Divens started pushing the faders for top acts, he himself was a rock musician -bassist and lead vocalist for *Souls at Zero*, formerly known as *Wrathchild America*. From playing guitar and lending vocals to *Wrathchild America* to mixing live sound for Enrique Iglesias, Divens has decades of experience on stage and behind the console. "I started playing the guitar when I was ten years old and started my first band when I was 15. For more than three decades I had been a performer, but destiny had other plans. One day I found myself in a position where I needed a gig to pay the rent and I answered a phone call from a tour manager. I initially thought I was only going to be tour managing but it turned out that they wanted somebody to mix. I said YES and that was my transition

from being a musician into the front of house world. I still wanted to be a rock star, but these gigs for FOH kept coming and it was working for me."

Obviously, the challenge of using a rotating selection of different consoles and managing sound for varied artistes, across genres, in a variety of venue

types must have been daunting. "To me, because I'm a musician first before a mixer, I don't find it to be as challenging. To me its pure music and when I

*Renowned FOH engineer **Brad Divens** who is currently mixing for Enrique Iglesias and has mixed for Linkin Park, Garbage, Cyndi Lauper, HIM, Bob Seger and countless others in the past, was in Mumbai for doing what he loves to do most – his fixintogetmixin classes. In between tweaking the knobs for top acts, Divens shares his love for the art of mixing live through these classes that are open to all levels of engineers, across the globe, free of charge.*

***PT** met the mix magician during his latest stop on the fixintogetmixin tour, at the HARMAN Professional Solutions office in Mumbai where Divens shared his insights on mixing.*





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**HARMAN Professional India and Divens shared mixing techniques with FOH engineers, in the India leg of Divens' fixintogetmixin class series in Mumbai. Attendees were enlightened with ideas and insights on how Divens utilizes the JBL sound systems and Soundcraft Mixing Consoles when mixing live.**

listen to the music and put it together, it's going to sound like that artiste. My interpretation is always based on what they are doing and it's never about what I think they should sound like. The challenge differs from artiste to artiste because I never know whether the singer will stand still and sing on the microphone or he will run around in front of the PA. As far as mixing and the actual music is concerned, I find it to be very satisfying because I love music so much and I'm lucky to be able to mix a wide variety. It's just a matter of staying true to what they are doing. I'm not going to make Linkin park sound like Cyndi Lauper or vice versa," he says.

## Mixing for Artistes

The FOH engineer is most susceptible to blame for any imperfections in the sound. It may be a vocal mic feeding back or the audience can't hear the singer or it's too loud or it's too quiet, it could be anything and the "sound guy" would be responsible. In this scenario, mixing for some artistes may get even more challenging. "Every artiste has his own challenges but there are three who were particularly challenging to mix for," he says.

"I think mixing for Enrique is challenging in the sense that the audience can be so loud at times, to the point that if I ever try to mix at that level it would be painful. I have to maintain the sound level because I know I'm never going to mix above the audience. Enrique is so much fun to mix! He is a great entertainer, a great singer and a visual treat.

I also found it challenging to mix for

the band HIM. The drummer was very intense in his performance and he pretty much played the same dynamics for the whole show, but the singer would sing soft and he would sing loud and the challenge was to keep his vocals out in the mix. In situations like these, I make sure that I adapt to things because I realize that I can never change the way the artiste performs. The only thing I can do is adapt, and try to figure out a way that is going to make it a little more enjoyable for the artiste and myself.

Delay is a very important part *Jane's Addiction's* Perry Farrell's vocal sound. The challenge here was his microphone and that delay has to be open all the time. He can do anything. He may stand in front of the drum kit, he may run in front of the guitar rig, he may jump down into the crowd, and that delay is on. It's picking up drums, it's picking up everything, so all I could do there is just work with it because I knew it had to be part of the mix, but again it's just a matter of keeping your finger on the fader."

## Evoking Emotions

FOH plays a crucial role in engaging the audience in the musical experience and evoking emotions. According

to Divens, engaging audiences and delivering a fresh experience, which is also familiar at the same time also involves evoking emotions in himself. "At some point during the show I end up evoking the emotion out of myself and that could be a combination of the audience, the PA, the artiste; everything just comes together. When I mix a show, I try to keep it dynamic. Many a times I watch the lighting as well and believe it or not, I have mixed some cues in sync with what the lights are doing. I always look around the room and watch the audience a bit too. If things are going right, they would be dancing and on their feet. I also always find the enjoyment in whatever I'm mixing. It does not matter who the artiste is or what the music is, I will find the enjoyment in it. So I invoke the emotion in myself and it translates to the rest of the venue."

## Technology - boon or bane?

This era has witnessed the emergence of high-end consoles and advanced DAWs and audio plugins and we are right in the middle of it. For sound engineers it's an exciting time to be in this field, or so it seems. "I think it has been

important for people with experience in mixing, where they now have those tools that translate their mix to be a little more studio album quality. However, I think it's also almost a deterrent for upcoming engineers who think I have all this technology at my disposal and I'm going to use it all, when in reality I believe that you should be able to dial the mix on a 12 channel mixer with a couple of delays. You should be able to do that first before you ever think about wanting to use all of this. More importantly, do you know what it all does and is it going to make your mix better or is it just going to make it different? When I started thinking about this whole *fixintogetmixin* class concept and how to approach young engineers and seasoned engineers and everyone in between, I was like wait a minute - you didn't always have all this, but now that you do, you feel it's necessary? No it's not really that necessary because as you should be able to go back and work with what you have," he explains. "The whole purpose of doing the *fixintogetmixin* classes, is my intention to get the point across that all these tools are great but it's the process in which you craft the mix that is the most important. It's important to be a lot more involved than just getting access to the most recent plugins and the most recent consoles," he adds.

## Crafting the Signature Mix

To craft his signature mix, Divens usually uses the JBL VTX V25-II and the JBL VTX A12 and a whole lot of other gear. "I got a pair of the JBL 708 in my studio along with the JBL 705; the Soundcraft Realtime Rack with UAD plug-in; I have the Soundcraft Vi3000 in my house so that I'm able to sit and dial things in. I make use of all that stuff in order to dial in. I start with the consoles and the nearfiles and the tracks and then I take it from there. I know if my mix is dialing in properly on the console and then I go to the PA, 85-90% of the times it is going to translate across the board," he says.

## Console "Wise"

There is no doubt that the industry has come a long way from the early digital consoles with clunky controls, monochrome screens and average audio quality to today's new age live consoles. We asked Divens if he nevertheless faces any challenge while working with new age live sound consoles and what additional features he would like to see on future consoles. "Well, I think one of the challenges we

“ Say YES to everything that comes along and don't be afraid to turn the knob till where you like the way it sounds and PICK YOUR GIGS! ”



face is that sometimes the consoles that the manufacturer wants to put out into the marketplace may not be quite ready to be put out. While I may be excited to switch to the newest version of a particular console, I also need to think if I would want to take a chance of something happening on a live show in front of 15000 people. I don't care if there are 5 people or 50,000, I'm never going to take a chance of going away from what I know is rock solid, even though I want to try out something that is new," he says. "Consoles these days have most of the features that everybody would like to see, having said that, I would probably like to see some development where the consoles would be more accessible to use every manufacturer's plugin packages. If somehow manufacturers could incorporate this into the console without it being some external piece of gear that can fail, it would be great. I don't know how they would be able to achieve that because some people run them natively, others use DSP. I have mentioned to Steven Slate

mix by sight, you have to listen. Through these classes, what I'm trying to convey is that just listen to the music. It's not that difficult to put together if you just listen! It's more about process and technique. All of the same principles apply to all artistes. It's more about the technique and less about being caught up in all the latest technology."

A tip that he shares with sound engineers aspiring to work at his level one day – "Say YES to everything that comes along and don't be afraid to turn the knob till where you like the way it sounds and PICK YOUR GIGS! There are many gigs out there, so pick the gig and don't be afraid to ask questions. If I don't know how to do something, I'm gonna ask. You decide what's worse – asking the question and then being able to do it, or not asking and then failing miserably. I don't care how

**“I believe that you should be able to dial the mix on a 12 channel mixer with a couple of delays. You should be able to do that first before you ever think about wanting to use all of this. ”**

many times that I would love to use his stuff live, but his stuff is only Native and there is no DSP required to run it. For me it's hard to incorporate and I don't want to take a chance, but it would nice if somebody could come up with that way of doing things."

On 26th April, HARMAN Professional India and Divens shared mixing techniques with FOH engineers, in the India leg of Diven's *fixintogetmixin* class series at the Chitrarth Studios in Powai. Attendees were enlightened with ideas and insights on how Divens utilizes the JBL sound systems and Soundcraft Mixing Consoles when mixing live. "Being able to listen to the music and work with whatever fear it is that you have at that time is paramount. You should be confident of telling yourself - all I need is a microphone and a source and a console and I can make this mix happen no matter what I have in front of me. And this is the aim of the class – to help develop this skill and the technique. I want to make people realize that there is more ways to mixing than just the technicalities. Yes, you need to know how everything works but you can't

it makes me look but if I don't know something, I'm going to ask and I would encourage you to do the same."

Speaking about the master-class, **Prashant Govindan**, Sr. Director, Harman Professional Solutions India & SAARC opined "Brad Divens is legend and authority in his trade and It's not often that industry professionals are exposed to the unparalleled hands-on experience garnered by such brilliant engineers.

'fixintogetmixin' is a well-known masterclass that has enjoyed a lot of success in the U.S. and we thought of replicating the format here as well.

Suffice it to say that it was a grand success and those who attended left with a lot of food for thought, thanks to the rare insights that were shared by Brad. I thank Brad for making the long trip to India and inspiring us with his tips and techniques.

We look forward to many more of these sessions."



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## NEUMANN LAUNCHES NDH 20 STUDIO HEADPHONE

Neumann has launched its first ever headphones **NDH 20** and the company is now ready to bring it to India.

The Neumann NDH 20 is a closed-back studio headphone combining excellent isolation with the carefully balanced sound image and outstanding resolution users would expect from a Neumann product. It is thus ideally suited for monitoring, editing and mixing tasks, even in loud and noisy environments.

Speaking at the launch **Vipin Pungalila**, Director, Professional Segment at Sennheiser Electronics India, said, "NDH 20 has received a phenomenal response globally and we are expecting a similar response in India. The entry of Neumann in the headphone segment is a great news for the Neumann patrons in the country. The unsurpassed sound quality of NDH 20 makes it a best-fit

for mixing purposes and it's worth the investment. The NDH 20 is a dream come true: reliable studio-grade monitoring – even on the road."

The NDH 20's newly designed 38-mm drivers with high-gauss neodymium magnets ensure high sensitivity and low distortion. In other words, the NDH 20 would not need a dedicated headphone amplifier; it sounds just as great on mobile devices such as laptop computers.

While many other closed-back headphones are marred by nasty resonances in the mid-band, making it difficult to come to reliable mix decisions, the NDH 20 offers an astonishingly detailed, well-balanced sound image, similar to Neumann's acclaimed studio loudspeakers. Its entire construction is true Neumann quality: The headband is made of flexible spring steel while the ear

cup covers are machined from lightweight aluminum. Large and soft memory foam ear pads make the NDH 20 a pleasure to wear for long periods without fatigue. For easy transportation, the NDH 20 is foldable with two detachable cables (one straight, one coiled) and a 6.3 mm (1/4") adapter. The mechanical construction, too, meets the highest standards.

The NDH 20 is suited to all applications that require high sound isolation such as monitoring for musicians and engineers in the tracking room as well as FOH work. It is also an excellent choice for critical listening, free from disturbance from the outside world and, vice versa, without causing disturbance to people nearby due to leakage. Thanks to its extended frequency response ranging from 5 Hz to 30 kHz the NDH 20 is particularly helpful to



check the upper and lower extremes of the audio band.

### Features:

- Linear sound balance, like Neumann's acclaimed studio monitors
- Excellent isolation allows working in noisy environments
- High long-term comfort, easy transportation
- Two detachable cables (straight/coiled)

## KRK SHIPS ROKIT G4 MONITORS

KRK Systems is now shipping the **ROKIT G4** – its fourth generation of the studio monitors. Reportedly, the ROKIT G4 product range, which includes 5, 7, 8 and 10-inch models, are competitively priced and have been completely re-engineered and re-designed from the ground up. The G4 monitors incorporate many of the advanced features of KRK's professional-grade V Series 4 monitors, improving and enhancing the ROKIT line.

"Our team put a great deal of time, energy and research into developing this product that has the power to transform any environment into a professional project studio," says **Jimmy R. Landry**, global director of marketing, Pro Audio Division, Gibson Brands. "If you compare the

KRK G4 monitors with the G3s, you will instantly hear the difference between the two, especially on the low-end accuracy—it's dimensional with a lot of detail. The high-end is more open and detailed as well. With selectable DSP-driven EQ presets and an on-board LCD, the user experience has significantly improved – and we believe there isn't a more complete studio monitor available at this price point that delivers such high-end performance."

The KRK ROKIT G4 studio monitors feature a systematically designed low resonance enclosure for minimal distortion and colorization, and a high-density ISO foam pad that decouples the loudspeaker from the surface, which minimizes vibration transmission for

improved clarity.

The bi-amp G4



range includes RP5 (5-inch), RP7 (7-inch) and RP8 (8-inch) models for near-field monitoring. An additional tri-amp RP10-3 (10-inch) version incorporates a 4.5-inch mid-range woofer and one-inch tweeter for mid-field monitoring. The RP10-3 can also be arranged in horizontal mode by allowing the user to rotate the mid-range woofer and tweeter by 90 degrees for more

precise listening accuracy and versatility.

In addition, KRK is working on a standalone "KRK Audio Tools App," which will soon be available for download in Google Play and iOS app stores. The app will assist with monitor placement; level matching; subwoofer level and crossover setting assistance; polarity; and EQ for all KRK monitor lines.

## WAVES AUDIO DEBUTS SUBMARINE SUBHARMONIC GENERATOR PLUGIN

Waves Audio introduces Waves Submarine, a two-octave subharmonic generator plugin.

Submarine adds bigger, deeper sub bass to tracks, with clarity and low-end accuracy. Powered by Waves' Organic ReSynthesis technology, Submarine's two subharmonic generators deliver well-balanced subsonic results on any

large sound system.

Submarine's two sub generators process kicks, bass, even full busy mixdowns – and cleanly add new subharmonic frequencies up to a full two octaves below the precise frequency range selected. The plugin's Organic ReSynthesis engine strips the original signal down to its core elements – carrier, pitch,

formant, and envelope – processes them individually, and then reconstructs the audio to create brand new sub frequencies which retain the pitch and time of the original signal.

The result is deep subharmonic content that is clean and musical and naturally blends with sources. The plugin's Range slider lets users

zero in on the exact frequencies from to generate sub sounds, anywhere between 20–240 Hz.

Use the Drive control to saturate the added subs and easily glue them into the rest of the mix. Use the Dynamics knob to go from short transient sub sounds, to heavier compression for longer sustained sub notes.




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## NATIVE INSTRUMENTS UNVEILS KOMPLETE AUDIO 6 INTERFACE

Native Instruments has unveiled the second generation **Komplete Audio 6**. Following the release of **Komplete Audio 1** and **2** earlier this year, the **Audio 6** rounds off Native's new generation of audio interfaces. Perfect for small bands, duos, or solo producers, **Komplete Audio 6** comes with a flexible set of connections for studio or stage.

The new **Komplete Audio 6** follows the sleek, all-black design of its smaller siblings, this time featuring a glass and aluminum housing – refreshing its look and feel while adding extra durability. An improved layout places essential controls, connections, and visual feedback – including new LED VU-meters – exactly where they're needed, for intuitive use.

Featuring a marked upgrade in

sound quality over its predecessor, **Audio 6** comes with high-definition recording at up to 192 kHz / 24-bit,

when recording.

Six inputs and six outputs let musicians and producers bring their



low latency, and all-new preamps with improved gain range and higher dynamic range for lower noise floors

whole setup together: 4 analog in/out (with DC coupled 1/4-inch TRS outputs for controlling modular

analog synths), 2 digital in/out (SPDIF), and MIDI in/out. They can connect mics, guitars, and other instruments, control external gear via MIDI or CV, create send and return loops with effects, and more, with the convenience of USB bus-power.

**Komplete Audio 6** now comes with two headphone outputs, making it easy for musicians, singers, and producers to create together. With latency-free direct monitoring, playback can be blended with monitored audio to the desired level using a dedicated knob, to hear exactly what's being recorded, in real-time. Headphone output power has also been doubled from the previous generation – great for stage use or high-impedance headphones.

## APOGEE DEBUTS SYMPHONY I/O MK II | DANTE + PTHD

**Symphony I/O Mk II** is a multi-channel audio interface featuring Apogee's flagship AD/DA conversion, modular, configurable I/O (up to 32 inputs and outputs), intuitive touchscreen display and optional microphone preamps.

Now, with the **Symphony I/O Mk II Dante** option card and a simple ethernet cable, **Symphony I/O Mk II** can be easily connected and shared across post production, broadcast, live sound or recording studio networks. The **Symphony I/O Mk II Dante** option card also includes



**Pro Tools HD** connectivity for integration of **Pro Tools HD** systems into a **Dante** network environment.

The **Symphony I/O Mk II Dante**

option card uses Audinate's **Brooklyn II** module which features plug-and-play media networking for up to 32 bidirectional channels at 96kHz and 16 bidirectional channels up to 192k.

The system can be configured with a number of custom options ranging from 8-32 analog I/O channels. **Symphony I/O Mk II Dante** allows up to 32 channels with **ProTools** and redundant **Dante** connectivity to be fitted into a single two space rack device providing the smallest footprint available with this feature set.

With the included **Pro Tools HD** peripheral port, **Symphony I/O Mk II**

let users route audio between their **Pro Tools** session, the **Dante** network and **Symphony I/O** modules, no need for an additional, stand-alone box.

**Symphony I/O Mk II** features **Apogee Network Control Software**. **Apogee Network Control** gives users remote, software access to all **Symphony I/O Mk II** settings. From your computer you can calibrate all channels, set output monitor levels, select analog level type, adjust mic-pre gain and more. Drag and drop setup and color coding let you create custom view that let you see up to 6 devices in a single window. **Apogee Network Control** works on macOS and Windows 10 computers and is compatible with the **Apogee Control** hardware remote.

## SOLID STATE LOGIC LAUNCHES DYNAMIC AUTOMATION SOFTWARE

**Solid State Logic** has released **Dynamic Automation Software (DAS)** for all **System T** broadcast production mixing consoles: **S500**, **S300** and **TCR**.

**System T**'s software environment and IP connectivity provide ultimate flexibility and agility. Whether used for music production, radio



and TV post, large entertainment shows, or live to air news and sports, **System T**'s unique console configuration can be programmed to provide setups tailored to the specific usage case. Available as a software option, **DAS** expands **System T**'s capabilities providing

the most comprehensive broadcast production feature set available on any large format digital console.

"Dynamic automation has become a necessity for many of our major broadcast clients for both live to air and complex television postproduction tasks" comments Tom Knowles, **SSL Broadcast Product Manager**. "By offering this as a software option our clients can adapt their **System T** capability as they need it".



# ECONOMICAL P.A. SOLUTIONS (EPS)



**EPS 1**



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Libra 250

JRX 215



Master Dealer  
In India



JRX 215



**EPS 2**



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## AVID RELEASES PRO TOOLS | ULTIMATE

Avid announces the immediate availability of **Pro Tools 2019**.

The latest version of the digital audio workstation boosts performance for professional music creators, aspiring artists, audio post professionals and engineers.

For users working in high track-count environments, such as audio postproduction, Pro Tools | Ultimate delivers 50 percent more voices/audio tracks than previous versions. In addition to this base voice limit increase to 384, Pro Tools | Ultimate software and HD Native customers will be able to further increase the number of available voices up to 768 per

system on par with a three-card Pro Tools | HDX system with the addition of native Pro Tools | Ultimate Voice Packs. The ability to scale the number of voices in Pro Tools | Ultimate software enables a greater degree of flexibility when working in tandem with HDX systems.

Additionally, this release of Pro Tools has enhanced playback features that enable more fluid creativity in the software. Users can perform seamless track and timeline interactions during playback inserting plugins, adding or deleting tracks, changing routing, adjusting loop duration and more. This suite of playback features allows users to

work quickly, and therefore more productively, without playback errors disrupting their flow.

"It's amazing to think that our existing Pro Tools systems can inherit so much additional capability with a software update such as this one," says re-recording mixer **Jonathan Wales**. "These are the features we've been dreaming of and they were highly ranked in the Avid Customer Association's annual vote."

For facilities and institutions, Avid also announces the immediate availability of Pro Tools Multiseat Network Site Licensing. Multiseat licensing enables easy administration

of multiple Pro Tools seats from a single account and local server, eliminating the need for a multitude of physical iLok dongles and cumbersome site management.

"Our goal was to deliver new features for every kind of user, whether they're working in audio post production, or music creation, and whether they're a Pro Tools" says Rob D'Amico, director, Audio Solutions Marketing at Avid.



## NATIVE VERSIONS OF APOGEE FX PLUGINS

Apogee's premium plugins are now available as standard native effects.

Apogee FX plugins run in AU/VST/AAX formats in any compatible DAW on macOS with no Apogee hardware required. This release includes all of Apogee's current plugins; Pultec EQP-1A, Opto 3-A, ModEQ 6, ModComp and the new Pultec MEQ-5.

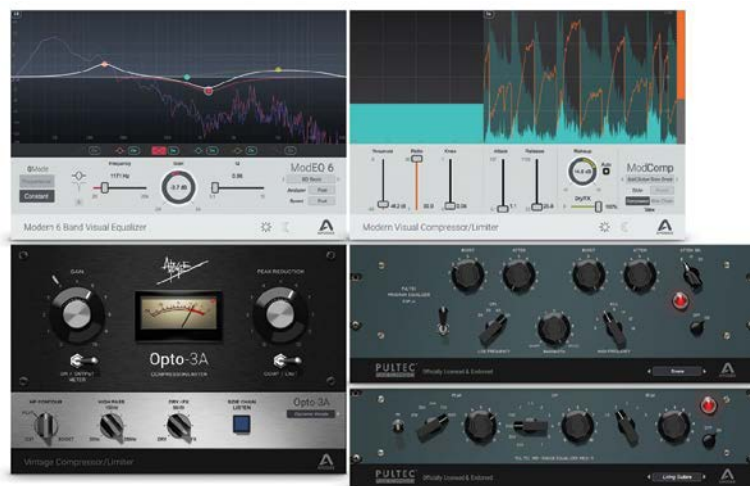
### Superior Sound Quality - From Modern to Modeled Vintage Hardware

Crafted by the same team that designs all Apogee hardware and software products, Apogee FX plugins offer superior sound quality and performance. From visually modern interfaces that allow users to precisely

shape and contour your sound to meticulously modeled vintage hardware that is so accurate it has been endorsed by our partner Steve Jackson of Pulse Techniques, maker of Pultec hardware. Apogee plugins will quickly find their way into your daily recording tool kit.

### Apogee FX Plugins, FX Rack and Dual-Path Monitoring

Apogee FX plugins offer unprecedented flexibility when processing at any point of workflow. Open individual Apogee FX natively in your DAW, without your Apogee interface connected. Creates favorite Apogee FX signal chains in the FX Rack for powerful and lightning



fast mixing. And users are using an Apogee Ensemble or Element series interface, link Apogee FX Rack in your DAW to hardware DSP

FX in your Apogee interface while recording to experience near-zero latency and simple operation with DualPath Monitoring.

## SOLID STATE LOGIC UNVEILS FLYPACK CONSOLE

Solid State Logic has launched their new **S500m console**. As the latest surface addition to the System T range, the S500m can be specified as 32 and 48 fader versions with turnkey flight case solutions, or as a larger custom specification surface with up to 96 faders.

"The S500m brings the portability and added flexibility our clients need for a multitude of broadcast environments, making it the ideal choice

as a flypack or transportable OB option"

The S500m provides all the



flagship features of the System T S500 console in a form factor that is over 25% lighter, specifically

designed for OB and flypack applications where weight and portability are key concerns.

The S500m's unique modular functionality also lets a console be deployed with or without an extended meter bridge. This allows a complete production system to be easily be transport in a purpose-built rack case, providing a console stand,

meter bridge shipping storage and two 8RU racks for Tempest Engines and Network I/O.

"The complexities involved in today's major sports and entertainment events means our OB partners still require broadcast consoles with a high specification yet be robust and easy to transport" comments Tom Knowles, SSL Broadcast Product Manager. "The S500m brings the portability and added flexibility our clients need for a multitude of broadcast environments, making it the ideal choice as a flypack or transportable OB option".



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# Riding the **LED** growth wave

## *In conversation with Ronald S D'Souza*

*While fellow lighting manufacturers and distributors in India consistently grab the headlines, **Ronald S D'Souza** – CEO, Leksa Lighting Technologies Pvt Ltd., calmly goes about his business. Not the oldest brand on the block, Leksa was founded a little over a year ago in 2017. Since then the company has executed stage lighting for 3600 seater state-of-the-art auditorium in Cochin, executed the architectural lighting design for the Bhubaneswar Hockey World Cup Stadium and the company's clientele today includes reputed organizations like ISRO, Infosys, Zee TV group, DDK, Godrej, TV18 group, TV Today, Star TV, Sony TV and many more. **PT** caught up with Ronald D'Souza to find out more.*

Leksa was founded in 2017 by which time the lighting industry in India was already well populated with brands, both national and international. Brand Leksa originated with support from its group of companies to serve and add value to the specialized lighting segment. The vision was to give the best experience to customers by starting a new era of smart lighting products and solutions. "There is a big gap in the Indian Industry between what a customer wants and what is available. I have a wide experience in the lighting field, which I developed on my own interest and involvement. Having that experience along with sound professional background, which is required for any industry, this is where I thought we can do much better value addition compared to the other players in the specialized lights manufacturing industry for the customers in terms of technology and professional service to the industry," says D'souza

Leksa Lighting majorly manufactures specialized Lighting systems for TV studio, Auditorium stage, Film and fiction shoot, Video conferencing, Stadium and Architectural façade lighting segments.

### **LED tech at Leksa**

Adoption of LED technology, though still in its nascent stage in India is definitely on an evolution path moving rapidly from traditional lighting technologies to LED and this segment is where Leksa envisions its growth. "LED technology in specialized lighting has a bright future and our core strength

is LED and we are proud to say that we are very strong in LED technology. Our motto is to convert all the old technology lights like halogen, Florescent, HMI to LED equivalent with much better results and benefits. The customer will benefit in a big way in terms of performance, flexibility, better reproduction clarity, low operating cost, long life."

D'souza stresses on intense energy savings and other major cost benefits of adopting or converting to LED. Citing benefits in the auditorium segment he says, "as of today, most of the auditoriums are equipped with the old technology i.e. halogen or CFL. With these type of lights, they are already paying huge money for electricity bills as energy consumption is more. Secondly, these lights are emitting lot of heat, then you need more air-conditioning. With halogen lights, the maintenance is very high as you must change the lamps now and then and now even these lamps are vanishing from the market. In case of LEDs, once it is fixed, 10 to 15 years it will work without any problem. India has a varied cultural background that is why opportunities are wide. New auditoriums are opening up. It is bigger than the broadcast industry."

Leksa lights are specifically designed, developed and customized for Auditoriums and Entertainment venues, as also the Studio, Film, Fiction, Broadcast and Entertainment industries. "We have over 35 series of lights with more than 200 models in it. We have multi-purpose CCT Tunable 30W/60W ENG kit, CCT Tunable Panels, excellent

chroma key panels, Titus series replacing HMI lights, Admire Series, in this you can boost the light to double and get the 6KW brightness of HMI light in just 1KW, LEK-Sun Series LED Pars have 10 models, then LED Fresnel lights with 50W/100W/200W/300W/400W and many more varieties. Apart from this we have few variants for Architectural and Video conference application as well."

### **Lights for Video Conferencing**

Elaborating on lights for video conferencing, D'souza says, "Many people have approached us for developing a good lighting system for video conferencing, which is not there in the Indian market till now. Customers have given us a good opportunity to do something new in this area and that has motivated us to make a specialized lighting for video conferencing. So we developed an excellent Video Conference light called Conex = Excellence in Conference. This is a 50W remote/Bluetooth based CCT tunable light with high purity. It can be easily mounted on a 1x1 or 2x2 false ceiling. Our customers were happy when they used our VC light in the conference as they see the re-production clarity is superb without having any shadow based ghost image in the video out quality. Corporates are spending so much money in other areas in conference room, whereas negligible budget is required for getting a good image re-production through our video conference lighting."

For the film industry, Leksa manufac-

tures LED lights for used with high-end cameras. "The key point here is that we have some CCT tunable LED lights for the industry having CRI, TLCI values are above 97.5 ~ 98 throughout. Green tone is completely removed, flicker free, can shoot up to 10,000 Frames Per second, compatible with 4K & 8K. We have approached some of the big cinematographers in India and have given them our lights to use. These minimum budget highly pure lights can do a pretty good job and we have already got a huge acceptance in the market," he says. "Today more than 10 fictions shoots are happening completely in LED through LEKSA lights," he adds.

### **R&D at Leksa**

When it comes to developing products, Dsouza informs that there is constant R&D with engineers designing and working on products that the customers want. "We give top most priority to build and quality. We have a talented in-house R&D and Quality Team with highly skilled Technicians in production. Major components we are using in our lights are rated as per international quality and most of them are customized, and thoroughly checked during Proto-type stage and before dispatch from our factory. We are using the best drivers/Power supplies in the world for better reliability."

Leksa has Regional offices, service centers and dealers all over India. Customers can approach the regional Offices for any support. Besides this, Leksa vendors in Mumbai maintain an exhaustive inventory for films and serials.



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# BToS Productions - The Rising Star

## *Interview with Nazeef Mohommmed of BToS Productions*



Nazeef Mohammed (r) with his partner Sai Vivek (l)

**Nazeef Mohommmed**, the frontman of an immensely young, passionate and growing enterprise – BToS Productions talks to Ankita Bhadrawale about their overall plans for the future and his recipe to designing, curating and executing the event production of a successful A.R. Rahman Live Concert



### **Tell us a bit about the inception of BToS?**

Honestly, there was no predominant passion or plan behind the inception of BToS. Most of the people who work here don't even belong to this field. Most of us are engineers who just came together with a common uniting factor

which is **AR Rahman** and our love for his music. The huge die-hard fans that we are, we decided to follow a certain path in the hope that someday we would cross paths with him and that's exactly what happened.

Firstly, I would like to thank the



Almighty for showing us that path and then Mr. Rahman helped us walk on that path with him. That philosophically summarizes who we are. There's not much we would have done without Mr. Rahman's kind support and trust in us. And to take baby steps. I had the partnership of three of my closest friends, Neeti Mohan, Benny Dayal, and Vivek.

As a company, we have diversified into four verticals- Talent Management, Visual Design, and Content Curation, Live Event Production and Television / Digital IP's.

#### How is BToS different from other production companies?

I feel that being relatively new in the industry, we bring in energy which is

we love doing. Being a young team, we believe only in hard work and often love to work without any restrictions or rules, which finally converts into remarkably satisfying work.

#### How different is it to produce a show for AR Rahman?

Challenging in its own way but also a lot of fun and creatively satisfying because we are such huge fans and have consumed his art for so many years. It's magnanimous and still growing on you.

Sometimes, his melodies are so charming, that all you need is a spotlight on him, and he is rendering his melodies on the piano. That's subliminal. And less is more. And then you have the next song which is like an "All

intricate layers as inspiration to draw a parallel to the imagination. His presence is overwhelming. He automatically knows how to get the best out of every craftsman.

We inspire from him each time and we go back to the drawing board, with an effort to make things better.

#### What major challenges do you face as a producer in India?

There are many challenges. The first challenge a producer faces is setting up the team, and I feel thankful that I have been blessed with a great team, whether it's sound, lighting, choreography, pyrotechnics or VFX. I believe that a great show can only be made possible with a great team.

with someone who doesn't have the vision.

While producing any show in India, we always have an investor, because of which it becomes necessary to ensure a proper return on investments. We also make sure that the promoters gain back from the concerts, so, the challenge lies in finding the right balance of how much we can spend and how to maximize what we have.

Ensuring that the technicals are in place is always a task- but in the case of an AR Rahman concert, we do not subscribe to any compromise. However, we are truly delighted by the support we get from our vendors, who not only have the required inventory but great manpower and skilled labor- something



exciting for us as well as for the client; resulting in a product for the end consumer that's new, energetic and edgy. In order to be on the top, we constantly challenge ourselves to think out of the box. For the BToS A team, it's something

Systems Activated" mode where you are time coded, choreographed, you have multi-layered visual storytelling, intelligent lighting, and all the other goodies!

His sonic contribution cannot be matched. We use his music and the

The next major challenge is finding and convincing an organizer who believes in the vision that our artist and our team has. To understand what the product is, the organizer needs to have a vision, so we have already filtered our organizers and therefore we don't engage ourselves

that is much needed in a time-sensitive setup. Overall, you need to have an army to work and the 'josh needs to be high!'

#### Tell us about a time you had to deal with a last-minute change or unexpected situation when planning an event?

There are always some last-minute



challenges especially when it comes to such a large show. Technically these shows boast of a very heavy setup, so it's very important for us that all our systems are properly tuned and frequently checked. Our show has sections that are choreographed and time-coded with all the systems linked and synced together. Sometimes for many parts of the show, we run at the click of one button, hence, we always plan even the minutest details.

Some delays are inevitable. And that's when we are forced to implement plan B and plan C. That's a basis for us- to always have contingency plans if we are branded for doing a non-stop, unhindered show. We cannot completely depend on technology nor can we rely on our past. It's always important that every show is checked thoroughly and many times- so we don't look at a last-minute problem as one. We only need to see what buttons to activate and what to avoid.

We firmly believe in being sure of what we do and again this is probably something we've learned from the master himself. In short, we over prepare to give and give ourselves a buffer, so that any additions or removals requested by Mr. Rahman can be carefully taken care of.

But beyond all this, it's a musical show, if nothing else works then the music is working, the band is playing, and Mr. Rahman is singing, and the show goes on. In short, after a point, nothing else but only Mr. Rahman matters to the audience.

#### What are some of the ways you measure an event's success with?

*Business sense:* If a promoter calls you back and says let's do the next show, then you know that you have made him happy and he has financially recovered his investment. That's a great sign of success.

*Audience experience:* It also depends on the audience. When we see our audiences enjoying and go back with a huge smile, that's probably our biggest reward.

That is the only way we measure the success of a show. But each time, no matter how successful we perceive the show to be, we always go back to our office to run through what had happened during the show. There are two main reasons for this. The first is to learn from our mistakes and the second is to improve even further. And that's also artistic satisfaction

#### What event planning software, tools, and techniques do you use?

Firstly you need a strong team. And a

team that stays together. That's possibly the most important tool.

Discipline on the field and off it, even more important.

The 'AR Rahman Live Experience' is larger than life. The ambition needs to be matched with the planning. We aim at designing stages that are over 300 feet in design and subsequently the inventory is huge. It surely means that all this needs to be developed with a great sense of planning and execution.

Our technical planning is also extensive and large and for that, we have visuals and lighting programs, including 3D visual studios right in our office. We literally pre-program an entire show from scratch. So, we have the sound with us, the recording of the audio is with us and we sync the dynamics into the sound, lighting and visual elements. This massive technical planning takes months because we never leave any-

by the genius minds of VJ Kaycee and Harold Fernandes to help me achieve this.

#### How do you keep your event budgets on track?

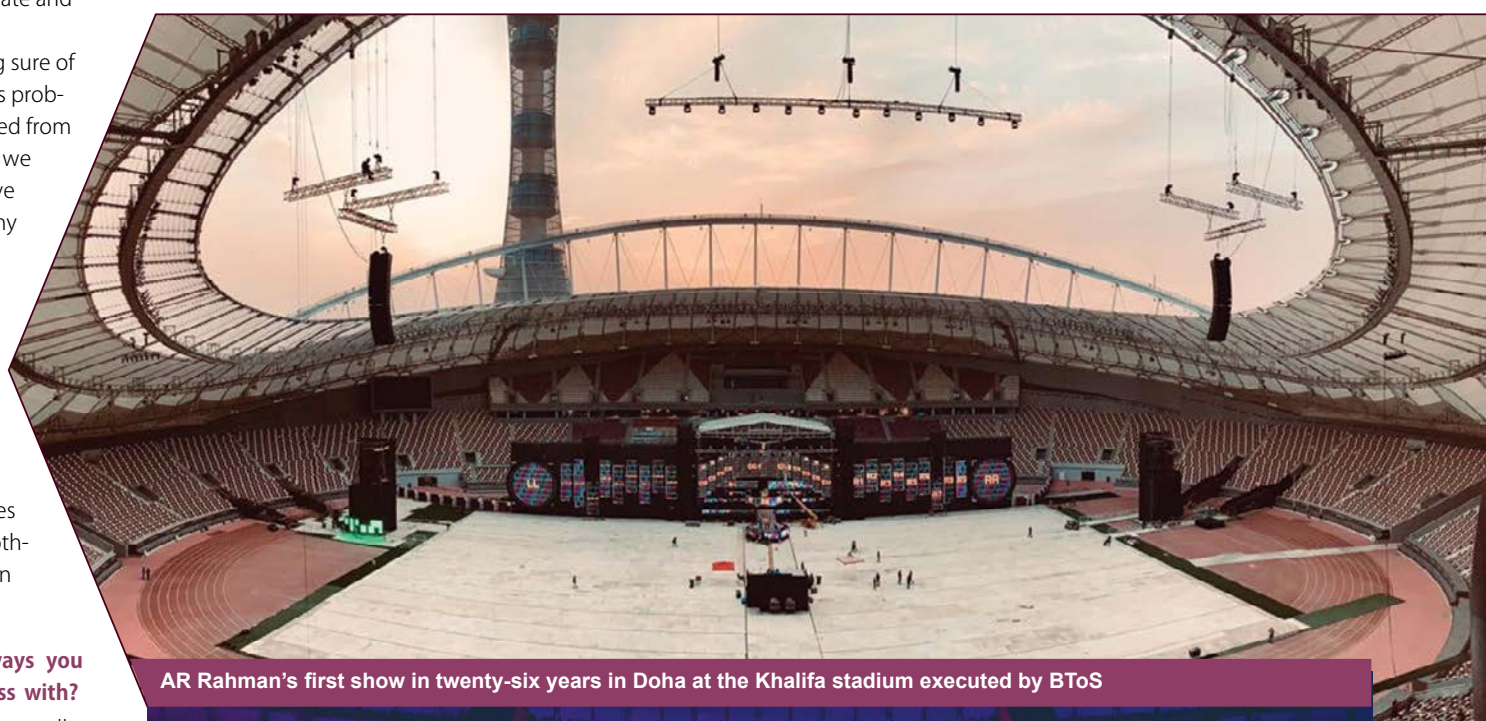
I have Vivek in my team who walks with the gun on my head all the time for the budget.

In any event, when I say that we are planned, I mean our budgets are also planned. For this, we agree to a budget and work backward on it. The basic aspect is to get the artist rider fulfilled which doesn't need to be compromised because of budgets, as that is an important requirement to deliver a quality concert. This becomes easy for us when vendors step forward to help us and I am so thankful to the vendors. It also makes a business sense that we all work together and back each other. This is why we have a mutual understanding

compromised because of budget or lack of it because almost everyone subscription-ally comes forward.

#### Could you share your opinion about safety at events?

When we go that large scale in our production, the key element that we should keep in mind is the safety of each and every individual, which includes people on stage, working around the stage, the audience, etc. We have seen accidents and hazards happen therefore it's very important for each one of us to subscribe to safety. Sometimes in an attempt to satisfy a smaller budget, organizers use a compromised product and that can become a safety hazard because you are dealing with something substandard. It may not be able to hold up the way it is supposed to hence, I think this should be a principal for everybody in general that no



AR Rahman's first show in twenty-six years in Doha at the Khalifa stadium executed by BTOS



thing for the last minute.

For lighting, we use the top of the line - Grand MA3 which is the newest in the market. Pre-visualization softwares like WYSIWYG and Capture to pre-design our lighting ques ahead of time. The larger part of our software and tools usage is for visuals, comprises of Cinema 4D, Notch, Adobe After Effects and illustration softwares. I am ably supported

with every vendor, and we make sure that they all stick with us. I think the underlying fact is that they all also want to be associated with a huge act like the Rahman Concerts and the immense love for him. Here I would like to take this as an opportunity to thank all our partners/promoters who have stepped forward to make the shows happen. I don't think our shows have every been

matter what the scale of our production is safety should be our priority.

We also have learned a lot from companies like *Men at Work* and *Media Pro* both of them are great teams who give safety top priority. When you have trusted partners like them on board, it becomes sure that safety will be

(Continued on page 60)





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# NOISE CONTROL

## KILLING MUSIC?

*In September last year the Bombay High Court refused to grant relief to PALA seeking use of "DJ music" and other audio systems during Ganapati immersions and Navratri. HC announced a complete ban on the use of DJ or sound systems during Ganapati Visarjan (immersion) because of increasing noise pollution. The article explores whether a ban on the use of sound systems for live events - be it cultural festivals or music concerts is a practical solution.*

In less than four months as devotees across Maharashtra and other states across India prepare to welcome Lord Ganesh, PALA (Pro Audio & Lighting Association) continues to fight and defend its members, seeking guidelines and regulations, within the ambit of which the use of sound systems shall be permissible.

The Ganesh festival is a century-old tradition. There are stories of Chhatrapati Shivaji initiating the festival to nurture a spirit of goodwill and uphold Hindu traditions and culture. The great Bal Gangadhar Tilak redefined the Ganesh Utsav in the late 19th century and re-energized the festival amid British autocracy. Over time, the streets of Pune and Mumbai witnessed 10-day celebrations which till date serves to bring together people of all castes, communities and religion who are unified in welcoming Lord Ganesha.

Tilak brought the Ganesh Festival from homes to streets of Pune and Mumbai, at a time when public social and political gatherings were banned by the British. So today, are we back to the old days? Have we become so "English" that we ignore the cultural sentiments of the masses comprising of Indian citizens across castes, religion and social strata? Should we be so educated and so English as to decide that our culture should be celebrated **sans** music?

The laws mandate that ambient noise

levels must be maintained at public places even during festivals and as in every civilized nation, they definitely MUST be maintained, however with proper guidelines, rules and regulations, revised laws and correct implementation.

All it takes in India is one phone call complaining about noise nuisance to stop a licensed live event with all permissions in place. If we have become so western in our outlook, it would serve us well to replicate the west completely.

The Seattle government website clearly states pointers on what can be done legally to address noise issues. Some key takeaways from this website is that officers must first issue a warning and secondly the complainant must be willing to allow officers to verify how the noise sounds from their premises. The website also clearly states that the complainant must be reasonable - "When living in a dense and diverse city zoned residential and commercial, a certain level of tolerance for noise should be expected. Some types of noises are permitted. We cannot intervene unless the noise is breaking an ordinance" states the website.

Similarly, in India too, no phone call should be allowed to call off an authorized licensed show unless the show or event breaks a law.

Unfortunately, in the present scenario the implementation of rules appear to be skewed, wherein cultural festivals

like Ganesh Visarjan and Navratri or live musical events are singled out, while conical speakers are used on a regular basis by houses of worship and political rallies. These speakers too generate noise levels equivalent to that of sound systems used during cultural festivals, but authorities don't seem to be taking any concrete steps to curb noise pollution here.

Also to be noted is that the conical loudspeakers are intended to throw sound to larger/longer distances, while some other sound systems like line array speakers for instance, used in musical live shows have "dispersion control" and can be arrayed to the audience in the venue (who have come there by their own will), reducing sound dispersed outside the venue.

### Some key points to be considered:

- **Outdated Laws:** Maximum noise levels permissible under the rules for various areas range between 50 and 75 decibels during the day and between 40 and 70 decibels at night under the Noise Pollution Rules-2000. When the law was formulated in 1986 and implemented in 2000, the ambient noise on the street during that period was taken into consideration. Today, ambient noise levels have increased phenomenally due to various factors, which

include amongst many others, construction and traffic on the street. Let alone Metros like Mumbai and Delhi, even smaller towns and cities probably have an ambient noise level on the streets beyond 75db, which means even a minute amplification of 5 db of the loudspeaker volume would be calculated at 80dB, which despite being reasonable, will tantamount to the law being breached as soon as the systems are put on.

- **Enforcement:** Do officials entrusted with the duty of measuring sound levels possess the expertise to perform this duty in a correct manner as per guidelines issued by law? For instance, as per the law, for live events like musical concerts, the noise has to be measured outside the venue. However, the grievance of many event organisers is that the rules are not being implemented in accordance with the law and many a times officials enter the venue and measure the sound from the speaker or the console area. This is akin to putting your hand in the fire and saying it's too hot.
- **Noise Monitoring Tools:** Moreover do they possess the required devices to check noise levels/pollution. Ideally, a Sound Meter which measures Leq should be utilized.

(Continued on page 84)



# 360 PRO SOLUTIONS



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# THE EVER-EVOLVING EXPERIENTIAL INDUSTRY

*The last two and a half decades has witnessed constant evolution of the experiential industry. In this article, **Sushma Gaikwad** provides insights into this industry which has through the years provided an opportunity for creativity and innovation to blossom into enterprises and business collaborations*



**Sushma Gaikwad, Co-Founder & Director, Ice Global**

Just recently, in March, I celebrated 25 years in the Indian event industry. Over these past two and a half decades, I have been a witness to the evolution of the industry and the experience has been exciting and extremely rewarding. This article is a tribute to this dynamic industry that has constantly evolved to provide an opportunity for creativity and innovation to blossom into enterprises and business collaborations.

### It began a little over three decades ago

A few local companies known for organizing concerts and public shows began offering event services for a fee by cajoling and convincing prospective clients. This began the journey for the event management industry in India. Initially the growth was slow and laborious. The pace quickened in the early 90's with the advent of Multinational companies launching in India. The need for the event agency was established and the industry grew in leaps and bounds as event agencies mushroomed across the country.

In the following years, the industry developed rapidly and eventually attracted investment by global players and today is recognized by global associations and operators as an evolved and established industry.

### Over the years

The industry has seen changes, some massive, some insignificant. As markets and technology evolved, the industry seamlessly adapted to the changes.

The industry that we call the experiential industry has been built on the pillars of passion, perseverance, resourcefulness and creativity. Driven by the need to innovate, the industry has constantly collaborated to strengthen service offerings and provide value in content, technology,

entertainment and engagement.

Lines have blurred as media houses and experiential agencies have partnered to curate and produce content. Partnerships have blossomed as agencies collaborated with travel houses, technology providers and artistes to increase service offerings.

The industry has evolved through shifting markets, emerging trends, dynamic technologies and service requirements. I have captured a few observations over the years in a feeble attempt to chart the development of the experiential industry in India.

### From One-stop-shop to Specialists

In the early years, agencies would offer a host of services which were branded Promotions, Corporate Events, Special Events and Birthday parties. Over the years, the terminologies as well as agency offerings have seen a dramatic shift. Agencies have moved from offering a host of varied services to positioning themselves as specialists in one or few areas.

Hence today, specialisations in key event categories exist such as MICE, Concerts, Festivals Weddings, Brand activation etc. Moreover, agency roles have evolved from service providers to solution providers as agencies are now being engaged on a turn key basis by clients & brands.

### Domestic Operators to Global Players

There was a time when agencies grew at a rapid pace with offices

across India and this was considered the mark of a flourishing agency. The need at that time was to establish presence across India and provide a network of services to clients in the country.

With the world getting smaller, the need for collaborative growth exists as experiences are both exported as well as imported, today. The trend has moved from domestic to international presence and there is a larger emphasis on the bandwidth of collaborations and agency networks across the globe. This, has further led to a rapid infusion of international event concepts and technologies which are now being hosted in India.

### Technology – The Game Changer

There was a time in events when 3 gun Sony projectors existed, when clear coms did not and when analogue control boards were considered latest in equipment. There was a time when event managers walked the length and breadth of football fields to deliver messages and walkie talkies belonged only in James Bond films.

India has rapidly moved from the dark ages when technology played the role of mere event aids. Today, the role of technology has increased

as it provides the opportunity for deeper impact, wider coverage and a stronger presence in event creation.

Technology engages across all event phases with a distinct ability to engage, immerse and enthrall through wearable technologies, apps, gamification, AR, VR, programable lighting tech and special effects, robots, drones, holograms, projection mappin... and the list is endless.

Today, technology provides an opportunity for creative innovation and event impact thus earning the rightful title of a game changer.

### Limited to Unlimited : Event Content & Amplification

One of the major changes has been the evolution of content.

In the first few decades, the event content planned was limited to live audiences and then evolved into content curation for televised audiences. Yet, over the past decade, social media has gained prominence and events have evolved into generating complete immersive experiences for audiences present at the event as well as those present on social media and television. Dynamic social media trends provide an opportunity for constant innovation in event content and event amplification.

### Service Providers to Intellectual Property Owners

While ticketed events have been around for decades, a growing affinity to create Intellectual Properties was established two decades ago by a few experiential agencies. These IP's have charted a new way forward for experiential agencies today. Many have evolved from client commis-

“Even after three decades, the industry is still known as the sun rise industry. With constant evolution it keeps reinventing itself to emerge as a force to reckon with.”





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sioned events by developing creative propositions and own successful Intellectual Properties that are internationally acclaimed.

### Developing into a Formidable Industry

The best measure of the evolution of an industry is the ability to share best practices and attract best resources.

The industry has come a long way. At first, experiential agencies functioned as sole operators and over a period of time relationships and networks were created for mutual benefit. The past decade saw a shift in mindset as agencies joined hands to create EEMA, an association that would represent the best interests of experiential agencies and the event ecosystem. The momentum has gained ground and many regional

associations are now coming together with an aim to share best practices and enhance knowledge.

One of the indicators of the shift is the fact that today event management has found its way into the curriculum of management degrees. This has become possible because the perception of the event industry has shifted and event management is on the consideration set of prospective serious career options.

### And it has just begun...

Even after three decades, the industry is still known as the sun rise industry. With constant evolution it keeps reinventing itself to emerge as a force to reckon with. Industry associations forge together to make pathways in influencing government policy, share knowledge and attract the right talent. Global tourism

### About Sushma Gaikwad

Sushma is a veteran of the event industry and is the co-founder of Ice Global, a premium experiential management company. She is also a partner in DVFX team, a visual effects firm.

Driven by a passion for learning, Sushma has set up a leadership coaching and training institute and is a sought after leadership coach, motivational speaker and business mentor.

Sushma is a frequent lecturer in management colleges and is a Director of Wizcraft Management Institute of Media and Entertainment, India's premium experiential education institute.

Sushma has recently been appointed Member of the Board of Studies of Somaiya International Convention Centre and Academy

Facebook : [sushmagaikwad.ofc](https://www.facebook.com/sushmagaikwad.ofc)

Twitter handle: [Sushmaspeak](https://twitter.com/Sushmaspeak)

boards and travel giants have begun to recognize the influence of the Indian experiential industry. Creativity through signature experiences is

the new mantra and with dynamic technology to give it wings, it can only shift to level next. The Sun rise Industry is here to stay.

## BToS Productions - THE RISING STAR

(Continued from page 54)

their foremost objective, irrespective of the budget. Therefore, for us, it is most important to tie up with partners for whom safety is a priority. This also enables us to focus on delivering a great show.

### Major shows conceptualized and executed till now?

Almost every Rahman show is iconic for us, as each time you get a chance to explore Rahman's music. It is very exciting both visually as well as in terms of production. Every time, Mr. Rahman mentions us on stage, it becomes a memory. He is the obvious reason behind anything or everything we have achieved until today. His stature has also helped us go places and do shows, which one could never have imagined.

Two years ago, we did a show at the United Nations Assembly in New York. We were the first Indian company to build a stage, put LEDs and successfully execute an upscale Rahman show inside the UNGA hall, where only people like Michel Jackson, Shakira and John Lennon have performed. We brought the whole AR Rahman experience into the United Nations hall.

That experience was brand new to the UN because they had never seen anything like this before as that hall is meant primarily for peace talks and speeches, but we got to use that hall to build a full-fledged AR Rahman production.

The collaboration with Chris Martin on the Global Citizen Stage and the collaboration with Carlos Santana in San Francisco are iconic, life-changing moments of our lives.

The most defining part of Mr. Rahman's music is the sound and that has been greatly piloted and captained by my very dear friend and our system engineer **Warren D'Souza** of Sound.com. Before he joined us, I never knew what a systems engineer was. A Systems Engineer in all our productions has helped us immensely. Warren on board has helped built the systems better and maximize output. Sound.com is our chosen partner for sound in this country also because of the manpower that comes with it. The team of Sound.com understands what is required and flow automatically.

Then we have the absolutely amazing band who contribute and make the whole AR Rahman concert better and larger - inimitable singers like **Neeti Mohan, Jonita Gandhi, Benny Dayal, Haricharan, Hariharan, Shashaa, Shweta Mohan and Ranjit Barot**, the music director who assists Mr. Rahman to recreate the compositions in a way that is more fitting to live concert, sometimes moving away from the cinematic context.

### Please elaborate on the challenges you faced while putting up the show at UNGA and in Doha?

Since it's the UN, one of the most heavily secured buildings in the world, the light and sound equipment are not on their security list, due to which we were not allowed to take any gear inside.

To get permissions, we had to submit a list of inventory for two months in advance for them to understand each product. Although it was challenging

for us, it was great fun because we were building a stage at an iconic place where a full-fledged concert had never taken place.

The other challenge we faced was planning the placement of lights and trusses. We changed the characteristics of the entire United Nations building. We built a stage where four rows of seating were covered with the stage and we decided to use minimum trussing on top. We also used the balconies and windows of the circular building to place the lights.

Similarly, the show in Doha was also iconic for all of us as this was Mr. Rahman's first show in twenty-six years in Doha. We performed at the Khalifa stadium where the FIFA world cup was scheduled to happen.

Fortunately, we had like-minded partners who had control over the venue and venue restrictions. They understood the vision and helped us build a 300 ft. wide stage in that venue with all the technical support needed.

I rate Doha as one of those shows where promoters had the same vision as the producers. They came together without any collision and that helped this large product call "AR Rahman Live in Doha."

### What are BToS plans for the near future?

To never stop learning. We are focusing on building newer ideas to up the game. Newer concert ideas, innovative methods of incorporating Live Feed into visuals- all this from a concert standpoint.

We are garnering a lot of interest from platforms to provide then with quality

music content. Still too early to talk about it as we are currently only squaring up ideas.

Besides, of course, to continue serving the artists, their fans and the fraternity with all heart and mind!

### Would you like to say a few words about your mentor Rahman sir?

No matter how much I speak, words will fail me, and I will never be able to justify how much he means to me and how much of a game changer he is. He's also made me believe in the power of faith and hope. He is simple and that's probably his biggest strength.

I would like to take this opportunity to pay my tribute and express my gratitude to Rahman sir for placing his trust in a young and raw team like BToS. At his level of achievement and experience, he could have wanted an equally experienced team to deliver his vision and expectations. But the fact that he put his faith into a few youngsters who just promised to be with him is a great statement of his belief in nurturing talent and how down to earth he is. This is something the world can learn from him. I want to thank him for being such a cool leader. Each time he speaks or performs, he teaches us something. He is directly or indirectly part of every moment of us. From him, we have also learned the art of being constantly upgraded and updated. There is no space for redundancy and for anything that is obsolete. He is evolving by the day, his music is evolving, his sound is changing and that's the reason for us to keep evolving and growing.



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# SAMSUNG BRINGS WORLD'S LARGEST ONYX CINEMA LED SCREEN TO INDIA; HARMAN INTRODUCES JBL SCULPTED SURROUND SOUND TO SWAGATH THEATRE IN BENGALURU

*Academy Award winner, musician and philanthropist AR Rahman inaugurated the iconic Swagath Onyx Theatre in Bengaluru*

Samsung along with group company **HARMAN** has launched the World's Largest **Onyx Cinema LED Screen** in India's tech capital Bengaluru at the iconic Shankar

been dramatically upgraded with JBL Professional cinema loudspeakers from HARMAN.

The Onyx screen is 3D enabled with active 3D for all 618 seats in

technology, Samsung will transform cinema viewing experience with HDR support offering unparalleled picture quality. With Onyx Cinema LED, movie lovers will get unparalleled picture

in the presence of Moon Goo Chin, Corporate Vice President, Consumer Electronics Business, Samsung India; Puneet Sethi, Vice President, Consumer Electronics Enterprise Business, Samsung India; **Prashant Govindan**, Head – Professional Solutions, HARMAN India and SAARC; Kishore P, Director, Swagath Group of Cinemas and AR Rahman.

"Samsung is the only brand offering an end-to-end movie experience, from stunning visuals through Onyx Cinema LED Screens to phenomenal sound from JBL Professional by HARMAN. Onyx Cinema LED at Swagath Onyx Theatre in Bengaluru will revolutionize cinema viewing experience for film lovers in the city and across India. This is a remarkable milestone for Indian cinema and a testament to our consumer-centric approach," said



The Onyx screen is 3D enabled with active 3D for all 618 seats in the theatre, offering an immersive experience with greater 3D depth through battery powered 3D glasses for viewers.

Nag Chitramandira on 25th April 2019. The cinema will now be rechristened as Swagath Onyx LED Cinema. Academy Award winner, musician and philanthropist, AR Rahman inaugurated the new theatre.

With a 14 metre screen, the largest Onyx Cinema LED screen format in the world, Swagath Onyx Theatre on Bengaluru's MG Road will offer powerful, captivating and larger-than-life visuals, transforming the cinema viewing experience for cine lovers. Globally, there are only two other 14 metre Onyx Cinema LED screens installed by Samsung to date, in Malaysia and China.

At 618 seats, Swagath Onyx Theatre is also the world's largest theatre that is equipped with an Onyx Cinema LED screen. Acoustics in the theatre have

the theatre, offering an immersive experience with greater 3D depth through battery powered 3D glasses for viewers.

With the introduction of this new

quality, true colours and greater vibrancy and accuracy, exactly how the director intended it to be seen.

The 14 metre Onyx Cinema LED Screen in Bengaluru was unveiled

**Puneet Sethi**, Vice President, Consumer Electronics Enterprise Business, Samsung India.

(Continued on page 64)



Harman, Swagath group and Samsung team with AR Rahman at the Launch of World's Largest Onyx Cinema LED Screen in India's Tech Capital Bengaluru.



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PR LIGHTING



### LS 150 Water/Flame/Tree

Model No. PR-6810/PR-6800/PR-6821

LS 150 Water/Flame/Tree is a high temperature resistant and high brightness luminaire, equipped with a 150W LED lamp. It features one color wheel and two individual rotating Water/Flame/Tree effect wheel, combined with 45°/35°/55° light angle, super-fast strobe, rating IP65 etc.

PR LIGHTING



### ARC LED 1572

Model No. PR-6262

ARC LED 1572 is a new launched IP67 architectural luminaire, with two independent heads. It features 72pcs of Philips 15W LEDs(RGBW), color temperature linear adjustment, combined with 4 individual areas control, 37°x57° square light.

PR LIGHTING



### POLARIS

Model No. PR-6805

With IP67 rating, Polaris is an impressive, compact, all-weather wash luminaire which features 7 x 15W RGBW 4-in-1 SMT LED lamps, color temperature of 3200K-10000K and each pixel independently controllable function, "swirl and kaleidoscope" effects.

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## DYNATECH & JTS DEPLOYS IMMERSIVE AUDIO AT JUBILEE HALL

The Nongpyndeng Presbyterian Church in West Khali Hills, Meghalaya is an iconic religious institution actively involved in the development of the community which has garnered a great deal of praise for their initiatives. A main highlight of their facilities is the famous Jubilee

Hall with a seating capacity of 1800. Over the years, they have hosted various events such as lectures, presentations, musical evenings and function gatherings in addition to their services.

During its recent course of renovations, the management

decided to upgrade the Jubilee hall with a brand new sound system. They picked **Phawa Audio** for the acoustic treatment and sound installation after visiting other sites, and gaining an understanding of their experience in the industry.

Based in Shillong, Phawa Audio

& video entertainment, is one of the most renowned pro-audio companies in Meghalaya having perfected numerous church and auditorium installations in the region.

"One of the main requirements was for the products to be able to deliver intelligible speech to virtually every seat in the hall, along with a microphone for the speakers," recalls Mr. Phawa, owner of Phawa Audio. "Hence we decided to go with nothing but the best - 8 units of the DEL-112 passive speakers with 2 units of HP-10A+ active speakers, and the newly launched UFX24 analog mixer, entirely powered by the V-4000 power amplifiers all from market-leader Dynatech; As for the microphones we went with the JTS TK-280 performance microphone and the FGM-170 gooseneck microphone."

Expressing joy and satisfaction at the new world class pro audio system, the church management said, "Our church has a rich heritage and legacy; and quality is something that we stand for. The Dynatech & JTS system has everything we were looking for - great coverage & performance, aesthetic appeal and economic viability. The sound immersion is spectacular, it is easy to use, and it delivers powerful crystal clear sound all across the hall."



Dynatech & JTS installed 8 units of the DEL-112 passive speakers with 2 units of HP-10A+ active speakers, and the newly launched UFX24 analog mixer, entirely powered by the V-4000 power amplifiers.

## SAMSUNG BRINGS WORLD'S LARGEST ONYX CINEMA LED SCREEN...

(Continued from page 62)

"The current wave of cinema is replete with great visuals, rich soundtracks and background score. The new Onyx Cinema LED powered by JBL's iconic sound will transform cinematic experience for movie goers. This mighty combination of a revolutionary screen and legendary sound will truly elevate the content and we are excited for Indian cinephiles to experience this epic offering," said **Prashant Govindan**, Head - Professional Solutions, HARMAN India & SAARC.

At the inauguration, HARMAN global ambassador and award winning musician & composer, **AR Rahman** said "With Samsung's ground-breaking Onyx Cinema LED Screen technology and HARMAN's iconic JBL audio, movie goers in Bengaluru will immensely enjoy their experience at the theatre. I

have worked with HARMAN and used JBL Professional systems for many years, and I can confidently say that they truly do justice to the music I create. There is no sound like JBL sound, so it makes sense that the brand is powering this amazing new way to enjoy movies and music."

"At Swagath Cinemas we take pride in our heritage yet strive to provide a futuristic cinema viewing experience to our customers. Our association with Samsung to launch the World's Largest Onyx Cinema LED Screen in Bengaluru is testimony to our commitment to movie lovers across India," said **Kishore P**, Director, Swagath Group of Cinemas.

The large 14 metre screen offers powerful, captivating and larger-than-life visuals with greater attention to detail. The screen is capable of delivering true colors with HDR support with greater vibrancy and

accuracy along with sharp contrast, higher levels of brightness and great viewing angles that are unaffected by ambient light; eliminating optical distortion and interference. The disruptive technology is a breakthrough in the cinema industry, which has been relying on projector-based system for decades.

The latest Onyx Cinema LED screen comes equipped with an array of solutions including Onyx VIEW, Onyx 3D and Onyx SOUND, providing a uniquely immersive experience.

The sound system at Swagath Onyx Theatre is comprised of Onyx Sound, an innovative audio solution that incorporates industry leading products from the HARMAN family of brands including Crown amplifiers, BSS signal processing, and JBL Professional's loudspeakers and exclusive Sculpted Surround technology. The Onyx Sound

reproduces today's dynamic soundtracks with stunning clarity and detail.

The system includes six JBL AM 7315 screen array loudspeakers, four JBL 9300 cinema surround loudspeakers, eighteen JBL 9350 + four JBL SCS 12 high impact cinema surround loudspeakers, six JBL AC28/26 used as underfills for the balcony area and nine JBL 5628 dual 18" cinema subwoofers. Processing is provided by a BSS networked audio system, and the entire system is powered by 31 Crown DSi amplifiers.

Apart from the new Onyx Cinema LED Screen, Swagath Onyx Theatre in Bengaluru has also upgraded its overall look and feel inside the theatre with refurbished interiors and comfortable seats, even as it retains its heritage look on the outside.





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## EAW APPOINTS JEREMY FORSYTHE DIRECTOR OF PRODUCT MANAGEMENT

Eastern Acoustic Works has promoted **Jeremy Forsythe** to the position of Director of Product Management. Forsythe joined EAW in March 2017 as Business Development Manager after working as an architect and architecture project manager in New York City, then designing nightclub sound and lighting systems in Los Angeles.

"Jeremy Forsythe is the obvious choice to be our Director of Product Management," offers EAW president **TJ Smith**. "Although he just joined the staff two years ago, Jeremy has

always been a part of EAW, as his father, Kenton Forsythe, is one of our cofounders. Jeremy's first-hand experience designing sound systems gave him an excellent sense of our customers' needs, which has contributed greatly to his success as our Business Development Manager. With his strong technical background and understanding of loudspeaker systems and their applications, he has already made important contributions to our vision for the future of our products. Jeremy has richly earned this

position, and I could not be more pleased."

"This is a great opportunity for me, and it comes at just the right time," comments Forsythe. "We have a superb engineering staff, and our business is strong and growing. We've developed groundbreaking technology that is making a big difference for our customers. And what you see now is just the beginning. We're developing amazing new products, and I'm excited to be a part of it."



**Jeremy Forsythe** Director of Product Management

## AVANTE AUDIO LAUNCHES IMPERIO SERIES, MODULAR 'MINI' ARRAY SYSTEM

AVANTE Audio has announced the expansion of its portfolio of professional audio products with the launch of the new **Imperio Series**. A unique 'mini' line array system, Imperio is reportedly ideal for installation in small-to-mid-size venues as well as for production companies looking for a flexible active speaker system that can be deployed in various configurations to suit a wide variety of different applications.

The Imperio system consists of three active speaker cabinets alongside a range of accessories and a variety of hardware that allows for both flying and ground-stacking. The Imperio is a versatile array module loaded with a pair of small woofers alongside six high frequency drivers, the **Imperio Sub** is a powerful sub bass enclosure featuring a single woofer and a built-in crossover and the **Imperio SUB210** is a dual woofer model that can be deployed either vertically or horizontally. All three feature internal Class D amplification and can be used together in multiple combinations to build systems suitable for a wide range of different purposes.

"Following the success of AVANTE's debut active speaker cabinet range, the Achromic Series, which never fails to impress when I demo it to customers, I'm very excited that we are expanding the range with the introduction of the new Imperio Series," states **Chuck Green**, Director of Sales for AVANTE Audio.

Designed to offer the ultimate combination of audio clarity,

portability and flexibility, the Imperio features two 4.75" Neodymium woofers each with a 1-inch voice coil. These are paired with an array of six 1.75" IDVAT (Inverted Dome Vertical Array Technology) HF drivers to deliver a wide frequency response

vertical array configuration. It is fitted with in-built rigging hardware that allows up to eight units to be linked together with selectable splay angles of 0, 4, 8 or 12-degrees between cabinets.

The matching Imperio Sub has



of 150Hz – 20KHz and an impressive maximum output SPL of 117dB (single box measured on Axis @ 1m).

Boasting a robust ABS plastic construction, finished with a heavy duty 1.0mm steel grille, the Imperio has a sleek and distinctive design. With a narrow dispersion angle of 90-degrees x 15-degrees, the cabinet is designed to be deployed in a

been rigorously designed and tested to perfectly match the Imperio, providing enhanced low frequency reproduction. It features a 10" woofer with a 2.5" voice coil and a 6th Order Bandpass design, allowing for a punchy maximum SPL of 123dB.

Housed in a solid plywood cabinet with a sleek black finish, the Imperio Sub's speaker cone is protected by

a thick 1.2mm steel grille. It is fitted with convenient handles on either side as well as an M20 screw pole mount socket. With relatively small dimensions of 13.8" x 18.3" x 20.7" / 300mm x 465mm x 526mm (L x D x H) and a manageable weight of 49.6 lbs. / 22.5kgs., it is equally suited to temporary event production as it is to permanent venue installation.

For larger venues or applications that require increased bass, the Imperio SUB210 offers a dual 10" woofer configuration each with a 2.5" voice coil. Powered by a Class D digital amplifier delivering 700 watts RMS (1400 watts peak), this model also features a 6th Order Bandpass design and offers an increased maximum SPL of 124dB.

As with the other sub model, the Imperio SUB210 features an internal crossover that can be switched to 90Hz or 120Hz and is also phase switchable (0/180). It is fitted with XLR and powerCON inputs and outputs together with a volume control dial and status LEDs for Power and Signal/Clip. Featuring a flexible design that allows it to be used vertically or horizontally, the robust plywood cabinet is fitted with two M20 Screw Pole Mounts.

In addition to the standard black finish, all of the Imperio Series speaker cabinets and rigging accessories are also available in white. Ideal for houses of worship and any other venue with a white or light color scheme, the white Imperio models feature both white cabinets and white grilles for a distinctively different look.



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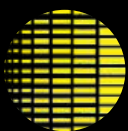
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## ESD CUBE FROM KV2 AUDIO

KV2 Audio has unveiled its most compact loudspeaker yet in the KV2 **Audio range**. The ESD Cube ultra-compact passive 5-inch loudspeaker utilises a unique trans-coil design for superior vocal reproduction, extended high frequency response, increased dynamic range and the lowest distortion of any comparable loudspeaker in its class. The Cube will be demonstrated alongside other KV2 products in KV2's exclusive demo room at the show – indeed, KV2 is the only manufacturer to have such a facility at PLASA Focus.

KV2's exclusive trans-coil AIC (Active Impedance Control) technology, already deployed in a number of KV2 products, has been taken to a whole new level in the Cube. The result is perfect phase response across the extended frequency range, meaning that the vocal imaging and instrument placement of the Cube system is nothing short of stunning.

According to KV2's founder and

chief engineer, **George Krampera**, the ESD Cube's unique design makes it stand out from the crowd sonically, even though physically it is designed to blend seamlessly into its environment. "What sets the Cube apart from similar offerings by other manufacturers is the unique trans-coil technology incorporated into its 5-inch twin cone speaker," he states. "We had already seen excellent results using our AIC technology in other, larger systems, and I was determined to develop it still further for the Cube. The results have been beyond even our own expectations with perfect phase response, increased dynamic range and the lowest distortion of any speaker in its class."

The ESD Cube may be used as a standalone system with up to eight Cubes powered by a single ESP1000 amplifier or with the ESD1.10 single 10-inch passive subwoofer for applications requiring more low-end reinforcement. One ESP1000 amplifier



will run up to four Cubes and two ESD1.10s. A simple, proprietary flying bracket completes the system for a low profile look and easy installation.

Housed in a durable and stylish aluminium enclosure that is available in any RAL colour, the ESD Cube's compact dimensions make it ideal for applications requiring discreet, high quality peripheral and/or distributed sound reinforcement including bars,

hotels, houses of worship, museums, tourist attractions, and corporate venues.

KV2 Audio Europe managing director, **Jonathan Reece**, says, "The Cube is our small solution to many of today's big audio problems," he says. "For those looking to fill an area with high quality sound without seeing the speakers, the Cube is an ideal fit."

## RIEDEL'S NEW ARTIST-1024 NODE REDEFINES COMMUNICATIONS

Riedel Communications has unveiled the new **Artist-1024 node**, a powerful expansion to the Artist intercom ecosystem. With higher port densities and full SMPTE 2110-30/31 (AES67) compliance, Artist-1024 is the next evolutionary step in the continuous development of the Artist intercom ecosystem.

The Artist-1024 node boasts 1024 non-blocking ports in just 2 RU, significantly reducing rack space requirements. This latest addition to the Artist ecosystem introduces a range of technical innovations centered on software-definable Universal Interface Cards (UIC). This entirely new type of interface card combines networking, mixing, and management, and can be configured to act as an AES67 or MAD1 subscriber card, or as an

Artist fiber/router/processor card. Changing the connectivity type is as easy as reconfiguring the UIC with the click of a button in the Director configuration software.

Artist-1024 also introduces a new customer-friendly, flexible licensing scheme with frame-level licensing instead of connectivity-type licensing. Each node starts with a Virtual Artist Matrix (VAM) license, which includes a defined number of ports (16 to 1,024) that can be freely distributed across the node's subscriber cards. Besides these node-locked licenses, there are also flexible licenses that allow for a fast reconfiguration of the system by simply moving capacities between nodes.

Riedel's newest Artist node has been designed with redundancy at its core. By supporting multiple



redundancy schemes, including N+1, NIC, and SMPTE 2022-7, it can provide an unprecedented degree of robustness and reliability. All control logic and data links within the frame are redundant, and additional security is provided by two load-sharing PSUs and a fan module with redundant fan units. The sum of these measures equals the most comprehensive comms safety net available on the market.

"System compatibility and the sustainability of client investments are of the utmost importance to us," said **Thomas Riedel**, President and CEO of Riedel Communications. "The Artist-1024 node will suit new clients looking to have a comprehensive and future-ready system today as well as those clients who have supported us for years and are now ready to take the step to IP infrastructures."

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**INSTALL** issue



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VWI INDOOR SERIES -2.5mm



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## WACOM INTRODUCES PEN-AND-PAPER FEEL DIGITAL PEN DISPLAY, BASED ON ELECTROMAGNETIC RESONANCE (EMR) TECHNOLOGY

### Keys to Success for Visual Learning

We are beginning to see the future of standard classroom in creating the content, leveraging its contents for secondary use and conducting classes interactively.

Teachers no longer use a blackboard and chalk, but they draw diagrams, add annotations and write formulas interactively in real-time on prepared materials while presenting without looking back to write on the board.

However, it has been the biggest challenge to provide writing experience real-time on digital devices. To overcome this challenge, Wacom has developed pen-and-paper feel digital pen display, based on Electromagnetic Resonance (EMR) technology.

The EMR technology helps user to comfortably rest his palm on display screen and write like you do with a pen and paper. And, the pen ink is replaced by digital ink which makes digital hand writing more

human.

With this technological progress, the materials for the class are created digitally with the freedom the digital pen offers, which can be viewed afterwards via PC and even on mobile devices in the cloud digital platform. This kind of digital classroom even breaks the barrier of place and time zone differences.

Wacom's interactive pen displays have been used across various sectors and industries including classrooms, training rooms and online content studios for more than three decades over 150 countries and regions. With this many years of accumulated knowledge and experience, they can support different styles of learning and different methods of teaching such as Interactive classrooms, flipped learning and distance education.

Wacom Co., Ltd. is a Japanese company headquartered in Kazo, Saitama, Japan, that specializes in graphics tablets and related products.



Wacom tablets are notable for their use of a patented cordless, battery-free, and pressure-sensitive stylus or digital pen. In addition to manufacturing and selling tablets, Wacom also provides graphical input technology for some tablet computers, which it calls "Penabled Technology".

The company created a pan India

reach by opening demo centres in Delhi, Mumbai, Bangalore, Hyderabad, Ahmedabad and Guwahati. In 2014 Wacom became the only company in the segment to provide free pick and drop service across India. Wacom Interactive displays are also published on Government e-Market sites for easy purchase by Government end customer.

## ALCONS AUDIO RELEASES CRS8

Alcons Audio has launched **CRS8**, a two-way passive-filtered full range loudspeaker, designed to meet all requirements of current and future immersive surround sound formats.

Reportedly, featuring the patented Alcons pro-ribbon driver technology, the CRS8 combines "an exceptional clarity and intelligibility with an unusually high dynamic range, offering the most realistic sound reproduction possible".

The CRS8/9090 system consists of the RBN401 pro-ribbon driver for HF and a vented 8" mid-bass for LF reproduction. The CRS8 HF section has an 800W peak power input, enabling a unique 1:16 dynamic range with up to 90% less distortion from 1kHz. to beyond 20.000 Hz.

Due to the "compression-less" principle of the pro-ribbon transducer technology, the system has a fully linear response, with

the same tonal balance at all SPL's for an intuitive 1:1 performance.

The patented (90°) horizontal and patent-pending (90°) vertical dispersion of the waveguide, offers a very wide and consistent coverage up to the highest frequencies (20kHz -3dB); very important for the imaging in height channels of immersive systems.

Driven by the Sentinel amplified loudspeaker controller, the Signal Integrity Sensing pre-wiring ensures dynamic cable/connector compensation between the CRS8 and ALC; This offers a 1:1, undistorted natural sound reproduction, regardless of cable length and amplifier impedance load.

Typical applications include (height layer) immersive surround sound systems for performing arts theatres, screening rooms, post-production facilities and dubbing stages, premium Home Cinemas and quality-conscious PLF cinemas.

**Philip De Haan**, head of Alcons

R&D comments: "Immersive sound is now coming up in a wide variety of applications, demanding a diverse choice of dispersion patterns. Following our initial designs with the patent-pending waveguide technology on the RBN202 pro-ribbon platform, very successfully deployed in the VR5 and CRMSC-SRHV systems, we focused on applying our new waveguide development onto our 4" pro-ribbon transducer platform."

The RBN401 is Alcons Audio's most-applied pro-ribbon driver, with thousands in use daily, as critical part of the line-array systems in particular. Now with the integration in the CRS8 reference surround, the wide 90° x 90° dispersion becomes available for larger point-source applications, where extended full-bandwidth coverage is required.

Phil continues: "The missing link has finally arrived, for a perfect voicing-match with the other RBN401 pro-ribbon loaded main- and surround systems, completing



the seamless 3D immersive experience."

The CRS8/9090 is available in two impedance choices: 8 ohms for efficient parallel connection in 5.1/7.1 configurations, and 4 ohms, for maximum amplifier efficiency in individually-amplified immersive surround systems.



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## BETA THREE WILL UNVEIL SLA10HA & DT SERIES

Beta Three India is all set to its launch **SLA10Ha** medium size line array system & **DT series** professional power amplifier.

SLA10Ha is a full range speaker of medium-size line array system. It comprises dual 8" ferrite magnetic LF units, a 10" ferrite magnetic MF unit and dual HF drivers with its diaphragm diameter 44mm. With the customized hanging wares, the system can be used both for



**DT series**

hanging and be put on the ground. Sound feature of SLA10Ha is clear, full and strong. It is suitable for small and medium-sized performances,

multifunctional halls, theaters, clubs, conference halls, and other applications.

### Key Features and Benefits:

- **Imported PowerSoft amplifier module:** LITEMOD HV+DSP-LITE
- **LITEMOD HV** is a compact and powerful functions amplifier module which can be loaded under high impedance with 700w@8Ω or 1400w@16Ω bridge mode, it's adopted compact PFC power with high output to ensure reliability and conformity under all working situations.
- **DSP-LITE** is a 2 inputs / 3 outputs high performance processing board, it is integrating an extremely compact interface panel compatible with mono-in/link-out or stereo-in configurations.
- **SLA10Ha** is an active medium-size

line array system. It comprises dual 8" ferrite magnetic LF units, a 10" ferrite magnetic MF unit and dual HF drivers with its diaphragm diameter 44mm.

Another product is DT series is multi-channel professional amplifier based on the efficient thermal distribution structure of security, entirely designed keeping the goal to achieve outstanding reliability. DT series can meet the needs of multi-purpose sound reinforcement applications with standardization of design and complete product line.

### Key Features and Benefits:

- Multi-channel professional Power amplifier
- Available in 2 Channel and 4 Channel modes
- Operates within 8Ω and 4Ω loads
- Availability of Three optional

sensitivity Switch

- Protect, peak and signal LEDs indicators for each channel
- High power supply system and efficient output level
- Housed in a rugged, all-steel 2U chassis
- Electronically balanced XLR inputs
- Amplifier protection includes short circuit, excessive temperature and DC on outputs



**SLA10Ha**

## TAKING THE 'MICROFLEX ADVANCE' TO INDIAN PROS

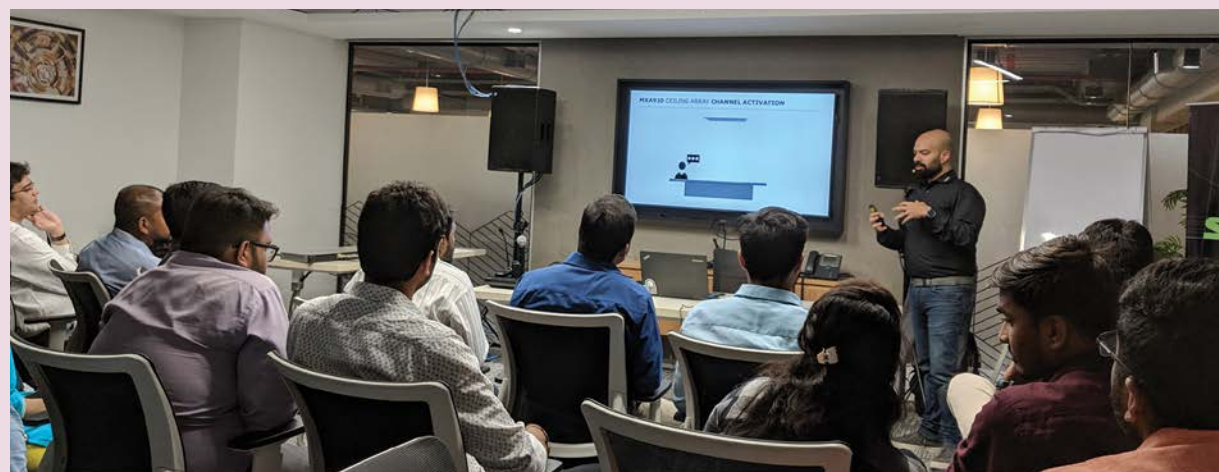
### *Sun Infonet conducts Training, Certification in Mumbai; Plans Roadmap for More*

With the aim to disseminate as much knowledge as possible about MXA range of systems to both technical and pre-sales professionals, Sun Infonet, audio distributors, and exclusive Master distributor for ShureMEA in India have conducted three days training certification in Mumbai to promote the popular Microflex range system from Shure in the country.

Of the three-day programming, day one was exclusively for the pre-sales team and the attendees were taken through the sessions on System Overview and Sales, and Digital Audio Network, while day two and three programmings was themed on MXA Certification and meant exclusively for the technical personnel. Day 2 & 3 of the course is strictly limited to 8 seats. This is to ensure quality in knowledge transfer and hands-on sessions.

The three-day training program was led by Shure MEA's Technical Support Engineer **Moswain Welsh Antao**, who was flown in from Dubai for the purpose, with Sun Infonet providing necessary system set-up in association with the local partners in the West.

The sessions for technical



personnel included applications in meeting room environments, and related user problems; Shure solutions plus supporting technologies; system design and installation; and MXA best practices and voice lift, besides a thorough hands-on session.

Microflex Advance – as the MXA 910 ceiling array microphone, and the MXA 310 tabletop array microphone are together referred to – was the focus of the program, besides the P300 IntelliMix audio conferencing processor forming part of the training.

The trainer was visibly happy with the levels of enthusiasm shown by the participants. "They are willing to

learn," Moswain said. "That's a good plus, and almost all of them showed good skills too; a little more exposure like this can make them good professionals in this particular activity."

Further, Hemant Gaba explains, "These systems are very sophisticated in technology and application; it is important for the professionals – both on the sales side and the installation side – to know their unique features and the kind of experience they bring to the user spaces," he elaborates. "It is keeping this in mind, we, initiated this program, in association with ShureMEA."

According to him, the knowledge

and finer aspects gained here will enable sales people to make a stronger and convincing pitch with potential customers, while those involved with design and install can make the work more experiential.

The attendees were put to test at the end of the program and were awarded Certificates for the skills gained.

The Sun Infonet exec thanked ShureMEA for the commendable support the manufacturer had been lending all through. The success of the initiative has as much to the support of ShureMEA as much to the enthusiasm from the local partners and participants, he added.

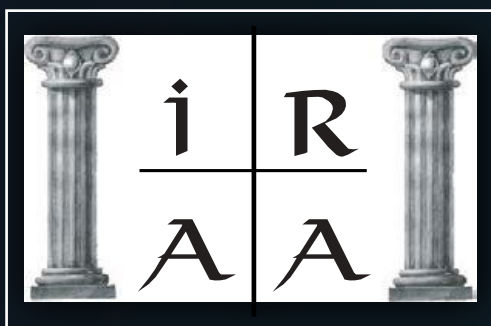


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# RIVERA INTERNATIONAL MANIFESTS A CAPTIVATING AURAL ENVIRONMENT AT PLAYBOY BEER GARDEN, PUNE

For the beautiful people of the ever-magnetic city of Pune that's always bustling, there's a new nightlife destination in town that's already creating quite the buzz.

Sporting a lush space complete with luxurious seating, a smacking

into an even more attractive delight. Not only does the music entice people to, but it also ensures that they'd never want to leave once they're in. The venue sports an exhaustive schedule featuring music acts from across the spectrum –

Symetrix, ToneArt, and Pioneer DJ; all of which have been chosen specifically to meet the venue's aural requirements that were derived from commissioning a detailed acoustical analysis of the space.

Designed and integrated by

elements of the surround system have been distributed evenly across the entire venue including the main dining space and common areas which ensures pristine quality audio playback with impactful low frequency fidelity provided through the powerful VISIO VS18 subwoofers. The loudspeaker setup has been designed keeping in mind the physical attributes and dimensions of the space; with the system being powered through a fortified amplification system comprising the powerful and efficient R series power amplifiers from ToneArt, while a unit of the Jupiter8 DSP control unit from Symterix shoulders the complete loudspeaker processing and management gamut. Additionally, the Rivera International team have also equipped the DJ console area with Pioneer DJ's world-class Nexus 2 system to ensure a smooth deck experience for resident DJ's and guest artists alike.

Rajesh Sadarangani of Rivera International delves into details of the audio scheme at the venue, sharing "When we first met with the owners and management of Playboy Beer Garden, the first thing they mentioned to us was the need for an absolutely adept sound system; cost notwithstanding. The idea was to have a system that would deliver optimum performance and do justice to the wide range of music that the venue planned to host. Considering the physical dimensions of the space, the most critical aspect for us to ensure that we have a system with loudspeakers that were not just aesthetically pleasing, but also delivered power with optimum dispersion in a manner that would cover the entire venue. The owners had a vast portfolio of brands and products to choose from, but eventually unanimously agreed on the system we proposed comprising loudspeakers from NOVA driven by amplification from ToneArt, as this was the only system that perfectly met the acoustic requirements of the venue and the quality and performance parameters set by the

(Continued on page 76)



Rivera Internationals installed multiple numbers of the Maxline M5 loudspeakers along with the E218 subwoofers coming together to form the formidable and impactful FOH system, while multiple numbers of the VISIO VS 12 MKII loudspeakers, KD12 loudspeakers, and the IC12A loudspeakers forms the surround system.

bar area, and a tucked away DJ booth that feeds the music frenzy; Playboy Beer Garden offers the best in chill and beer that anyone could ask for.

One of the official Playboy cafes in India, this place is all about great craft beer, mean concoctions and hard liquor. The venue features its own in-house brewery and some of their creations are a must try! And another key highlight there is the slew of exotic beer cocktails that they offer. That apart, the venue also provides sumptuous bite - from lip-smacking peri-peri chicken to light chocolate flans to nachos topped with garbanzo beans to feta and pomegranate, and balti spice chicken skewers with homemade aioli. Fun never happens on an empty stomach at Playboy Beer Garden.

The concept of enchanting confluences is continued in the kind of amazing music experience that's on offer at Playboy Beer Garden. When the music takes over, Playboy Beer Garden turns



from home grown artists to those from other cities – from live acts to DJs – making Playboy Beer Garden a playground for all of them! This is probably why Playboy Beer Garden lives up to the hype as one of Pune's few 'truly music destination.

But what makes the music at Playboy Beer Garden even more stunning is the quality of the sound experience due to the venue's comprehensive audio scheme which involves a carefully designed system comprising install specific products from niche brands like NOVA,

reputed Mumbai-based audio solutions expert Rivera International (who are also the official distribution partners for NOVA and ToneArt products in India), the all NOVA loudspeaker scheme at Playboy Beer Garden has multiple numbers of the Maxline M5 loudspeakers along with the E218 subwoofers coming together to form the formidable and impactful FOH system, while multiple numbers of the VISIO VS 12 MKII loudspeakers, KD12 loudspeakers, and the IC12A loudspeakers forms the surround system. The individual



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## PEAVEY UNVEILS ELEMENTS MARINE-GRADE CS SERIES LOUDSPEAKERS

Peavey's industry-leading has unveiled Elements **C Series** weatherproof loudspeakers. Reportedly, this series of composite enclosures are constructed from an advanced composite fiberboard material that is dimensionally stable in wet conditions and resists contamination yet has the resonant properties of wood.

In order to qualify for marine-grade ranking, all metal components have been upgraded to 316 stainless steel for even higher resistance to pitting and corrosion. This includes the front grille, which is now stainless steel rather than aluminium, and the permeable hydrophobic membrane between the speaker and the grille has also been upgraded. The number of mounting points has been reduced in order to reduce the risk of corrosion and water/salt ingress but a purpose-built U-bracket with a positive locking mechanism is included to allow for fast and easy installation with maximum

angle adjustment. The CS versions also feature an integrated multi-tap transformer with 70V, 100V and 8 Ohm taps along with removeable plugs for all ports. All models are available in black or UV-protected marine-grade white. Like the Elements C Series, the CS versions are verified to IP56 level, although in reality the real IP rating is likely to be even higher.

According to Peavey Commercial Audio's North American sales manager, Scott Schumer, the Elements CS versions are a welcome addition to the range. "We developed the CS versions in direct response to requests from a number of customers," recalls Schumer. "One client in particular specifically required marine-grade speakers for a cruise ship installation and wanted to use Elements, so it made sense to build them. It's clearly a very logical extension to a successful range, so we

were only too happy to oblige!"

The Elements CS Series is available in three two-way, full range configurations and as a flyable subwoofer. The Elements 115CS and Elements 112CS feature 15" and 12" weatherproof Black Widow woofers and an RX 22 2" titanium diaphragm compression driver tweeter coupled to a Quadratic-Throat Waveguide rotatable horn. The Elements 115CS

and Elements 112CS can be ordered with either a 60° X 40° or a 105° X 60° horn. The Elements 108CS combines a 75° X 75° horn with an 8" weatherproof woofer in a compact and durable enclosure. The Elements 212CS subwoofer is a flyable subwoofer enclosure featuring a pair of 12" weatherproof woofers.



## KRAMER DEBUTS 8K SWITCHER

Kramer Electronics has unveiled **VS-34FD**, a 34-port modular 8K multi format digital matrix switcher with interchangeable inputs & outputs.

VS-34FD is a first of its kind 34-port is an 8K ready multi-format modular matrix switcher for AV signals, states Kramer. It supports HDMI, HDBaseT, DGCat, fiber optic, DVI, VGA HD-SDI as well as analog and digital audio. The VS-34FD chassis is backwards compatible with all existing cards (with the addition of an adapter) and futureproofs AV installations with an 8K ready chassis for upcoming 8K cards.

Furthermore, all ports can be used interchangeably as either inputs or outputs, according to installation requirements.

VS-34FD has an independent audio matrix in addition to the audio features of the installed cards, a built-in Ethernet switch for use with any card that has an Ethernet port, and redundant hot swappable power supplies. All cards can also be hot swapped and due to the switcher's automatic recognition it does not need to be re-configured when removing or inserting cards – All in a convenient



4U form factor. Future capabilities will include video wall processing as well as seamless switching.

"Whatever the size, environment or complexity of your installation, VS-34FD enables complete customization and provides an end-to-end AV

solution for both current requirements and future technologies", said **David Margolin**, VP Marketing at Kramer.

"Kramer is the first manufacturer to launch a fully flexible modular matrix switcher on this scale that is also 8K ready", added Margolin.

## RIVERA INTERNATIONAL MANIFESTS A CAPTIVATING AURAL... (Continued from page 74)

owners and management. Precise positioning of the speakers allows us to cover the entire space, and, also effectively solve any challenges that were envisaged earlier. This comprehensive system has created a lasting positive impact that's left the venue's patrons enthralled and the management extremely pleased. We are proud to have played our role in ensuring Playboy Beer Garden stands out as a destination

for premium music experience. We're grateful to the management at Playboy for investing their faith in our brand; and we thank them for their kind words of appreciation for the work we've done.

A member of the managing committee of Playboy Beer Garden talks about the venue asserting its mark in Pune as the city's ultimate chill-out experience, saying "Playboy Beer Garden is all about

the experience, and I'm proud to say that's exactly what we deliver. Our in-house service team have done a fantastic job of delivering the best relaxed dining experience in the city, and they continue to do so every single day. The music and sound aren't outdone – as the experience at Playboy Beer Garden is gets you absolutely in the feels! The place sounds brilliant with our new sound system – it's almost like

a 'goosebumpy experience'!! We're overjoyed to have compliments pouring in from our patrons about how lively the place sounds and feels, and we extend our commendation to the Rivera International team who have worked on this project have done a fantastic job. The place is always busy, and our patrons are always having a great time! What more could we ask for!"

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## YAMAHA UNIFIED COMMUNICATIONS ANNOUNCES WIRELESS MICROPHONE OPTION TO EXTEND AUDIO CAPTURE FOR CS-700 VIDEO SOUND BAR

Yamaha Unified Communications has announced a new wireless extension microphone for the **Yamaha CS-700** Video Sound Collaboration System for huddle rooms. Now customers can choose between the new XW-CS-700 wireless mic or the existing wired model for their collaborative requirements. Unobtrusive and easy to integrate, the mic extends audio pickup beyond the CS-700's 12-foot radius while eliminating cable clutter from today's modern huddle spaces.

"The wired extension microphone is great for many environments, but in some larger applications, the 25-foot cable isn't long enough or needs to be hidden," said **Holger Stoltze**, senior director of technical sales and marketing, Yamaha Unified Communications. "Yamaha is the leader in wireless microphone technology. We have combined our know-how with the audio and video

technology innovation we introduced in the CS-700 to provide end users with more options to best fit their conference space and application needs."

The new XW-CS-700 wireless extension mic uses a proprietary

and a rechargeable battery that delivers up to eight hours of talk time on full charge. The XW-CS-700 will begin shipping in June.

Designed for huddle rooms, the Yamaha CS-700 Video Sound Collaboration System delivers the

highest degree of audio intelligibility; and a wide-angle HD camera for the far-end participants to see everyone in clear detail. Users can quickly connect to an organization's chosen UC platform using a single USB, eliminating the frustrations and



connection between the CS-700 connector and an HD Dual microphone receiver, which allows for a greater distance between the CS-700 unit and the microphone. A second wireless microphone is also available. The omni-directional wireless microphone includes a charger base

highest-quality audio, video, and collaboration capabilities in a simple and smart wall-mounted unit that is easy to install and deploy. It features an adaptive beamforming microphone array for perfectly captured conversation; four Yamaha speaker elements to provide the

inefficiencies of operating disparate video, audio, and collaboration components. In addition, the CS-700's integrated network management system allows IT staff to deploy and remotely manage each unit from one location, increasing service response and efficiency.

## ZOODIO PRO FORGES BEAUTIFUL MELODIES AT QUARTER PILLAR MUMBAI

A small but crowded place, Quarter Pillar, known for its indoor and outdoor setting is situated in Andheri West. **Mr. Aditya Jhanwer** and **Deepesh Naik**, owners of Quarter Pillar have started this place with a vision and purpose to offer exquisite dining & clubbing experience to the party lovers of the city without burning a hole in their pockets.

This place of 600 sq. ft. has a wonderful and charming ambiance

which includes the huge display of some wine bottles with good wall art on both the sides along with a huge bar area in the center. The place also serves delicious cuisine with a variety of traditional dishes.

Further to enhance the overall experience at Quarter Pillar Zoodio Pro was brought into the design to install the entire sound system of Quarter Pillar. While conducting the initial survey of the place the team of Zoodio Pro spoke with clients

in details. Commenting on this **Dylan Hilton**, Project Manager, and coordinator, Zoodio Pro says, "As the client was looking for a cost-effective system which can be used for the live band as well as for DJs. We decided to go for the BRT12 along with the TRS218 sub which is a good deal for an ideal PA for a place like this cause of the consistent tonality it offers and the KS3 used as fillers, cause of its extended bass response it helps it covering up for the lower frequencies

in the complete area." He further adds, "TRS-218 is always been of the tight sounding subwoofers and what more one needs that security by QSC amplifiers."

While explaining about the technical challenges Zoodio Pro have faced during this entire installation process Dylan says, "Since the place has a shed roof design, we have to fabricate brackets for the main PA so as we could be able to maintain the height of the speakers. The same shed roof design also causes us some issues with the lower frequencies which were taken care by placing the sub at different locations so that we could find the ideal location for the subwoofer."

For this installation, the inventory supplied by Vardaman Mega Tech Pvt Ltd.

After the installation which was completed on 1st of August 2019 the services at Quarter Pillar appears dynamic. On this, **Mr. Deepesh Naik** commented, "We are really happy with the installation and the quality of sound. It is powerful but not harsh and evenly distributed."



ZOODIO PRO Installs along with the TRS218 sub Quarter Pillar



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# Reynold's brings d&b audiotechnik KSL to India

**T**ell us a little about the inception of Reynold's - how and when did you start the company?

My grandfather started Reynolds in 1908 in Kolkata. Originally, the family business was into musical instruments, and my father was the first person to manufacture guitars in India. In 1977 at the age of 18, I was already running the business as my father was not keeping good health. In 1981, I moved to Bangalore and started a branch of the same MI business there. We used to talk

*From ferrying the first speaker systems to venues in a cycle rickshaw to becoming one of the leading companies in the Indian entertainment and music environment, Bangalore based Reynold's has come a long way, rapidly growing into one of the biggest names in live event product rental and distribution.*

**Felix Remidos** of Reynold's through the years has invested in latest, state-of-the-art Sound, Lighting, Video and Trussing Systems. Earlier this month, Reynold's became the first rental company in India to purchase d&b audiotechnik's KSL systems launched at NAMM in January this year. **PT** got in touch with Mr. Remidos to know more about this purchase and the company's future plans.



to musicians who came to the store about their gigs and realized there was a need for good sound, and therefore in 1982, I expanded into the audio rental business. We initially started with a small audio system, which we used to take to gigs in a cycle rickshaw!

**What kind of events were you doing**

**when you first ventured into live event rentals and what kind of inventory (speakers & consoles) did you first invest in for live events?**

Our first system was put together using Philips (Holland) drivers and our own homemade cabinets. We used an Ahuja Preamplifier with inputs on the amp, and Ahuja microphones. At that

time, we did not know anything about audio mixers etc. Most of the gigs were for small dance bands and small college festivals.

**What was the staff strength at that time and what is it now?**

We started with just two of us and slowly added on staff as we grew big-

ger. We currently have around 175 full time staff in the rental business between our Bangalore and Hyderabad offices.

**Which was that first big ticket show that catapulted you into the big league?**

Our first "international" event was with INNER CIRCLE, a popular reggae band that came to Bangalore. That was when we were still using Peavey Drivers and amplifiers, in homemade cabinets that we constructed locally. The other international (though smaller) events were the International Jazz Yatras that we used to handle in Goa. However, we moved on to using proprietary branded



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systems. Our first system was the Meyer-sound MSL-4 system that we used with MC Hammer and Deep Purple around the year 2001.

**You recently became the proud owner of the d&b KSL systems. You are the first rental company in India to purchase this system. What was your motivation for this purchase and which segment are you hoping to target with these systems?**

This was an easy decision as we had already purchased the flagship GSL system. The KSL belongs to the same SL family series from D&B, and it was a natural extension to the existing GSL inventory that we already had.

**Did you have the opportunity to hear the systems in a live environment before you made the purchase?**

I was invited for a hearing of the prototype in Germany in April 2018, because we already had the GSL in our inventory and this was part of the same family of speakers, so obviously D&B wanted us to be part of the first group of potential customers to hear the system.

**Your inventory now includes both KSL and GSL. How many boxes do you have?**

Currently, the GSL system consists of a total of 52 boxes, including the GSL8, GSL12 and SL subs. The KSL system consists of a total of 36 boxes including KSL8, KSL12 and the SL subs. So the total inventory of SL series with us currently is 88 boxes and we have another order already pending with the factory!

**You were also the first Rental Company in the world to purchase the GSL systems. What prompted this decision?**

I was part of a group of 20-30 customers worldwide that were invited to hear the first official preview of the GSL system in 2017. And I think, probably the only customer that did not own a d&b rig!! However, when I did hear the system and realized what it was capable of in terms of both Audio

Quality and SPL levels, I immediately knew that I HAD TO HAVE IT ☺. For me the reasons to buy this system was fairly simple - a) The Audio Quality, b) The amazing power that the speakers delivered which was very important for the large scale concerts we were wanting to use the system for and c) The technology behind the speakers. Having path-breaking technology like cardioid mid-top speakers, meant that all the energy was going out IN FRONT, and when one walked on stage hearing the PA fully on, it was amazing how quiet the stage was! The SL subs really MOVE AIR, and you will feel the punch right in your gut! Most importantly, d&b were using the same time-tested D-80 amplifiers to drive the speakers, so it wasn't all new. The heart of the system being the amplification was still what d&b was using across most of their speaker models and that made the system very reliable. Reynolds is extremely honoured to be the first company in the world to receive the GSL system – not something that we asked for, or expected – but it was a pleasant surprise that d&b decided that they wanted us to have the first system out on the planet!

**Please tell us a little about your association with d&b and their distributors in India – Ansata**

We have a very close relationship with Ansata, thanks to the fact that they are in Bangalore and hardly 2-3 km away from our warehouse as the crow flies. Apart from that, what we really value in our relationship with Ansata is their professionalism, their commitment to the brands that they carry, the support that they offer and most importantly, their technical knowledge, which in a highly technical industry is very important, as you cannot only talk about products and money. As a distributor, you need to have the knowledge and the technical background to support what you sell.

**Tell us little about your inventory today. What does your inventory look like today?**

So, apart from Audio, our company also offers Lighting, Video (both LED and Projection) as well as Trussing / Rigging for events. Our Audio inventory runs into several pages, but suffice to say, that in each of the above verticals, we rank among the top five in the country – which is not a mean feat by any standards!! Apart from our new d&b system, we still have a sizeable inventory of Meyer Sound Audio Speakers and Audio Focus Speakers (the smaller Ares 8 line arrays). In Lighting, it mainly revolves around Clay Paky and PR moving lights, as well as a huge inventory of LED lights. Our Lighting control is mainly MA Lighting – both dimmers and controllers. In Video, our projectors are mix of Christie and Panasonic, our LED Screens currently are all from Liantronics, and our AV switchers are from Extron, Lightware and Barco. We recently purchased the Barco E2 switcher, which is our flagship switcher at the moment. Our trussing is from Total Fab's, Eurotruss and Universal Truss. Our scaffolding is completely from Layher, Germany. We are today a complete ONE STOP solution and most event companies prefer to work with us as they don't have to look for multiple vendors as we have everything in-house. We back up our inventory with a full-fledged service center comprising of eight full time technicians and a fleet of 10 Cargo Trucks and also Passenger Vehicles for our crew.

**What are the big tickets shows you have done in the recent past and anything big lined up for 2019?**

We have worked with all kinds of events – International Touring Rock Acts like Bryan Adams, Metallica, Guns n Roses, Deep Purple etc. Today's international performances that are more popular are the EDM acts, and we have worked with Wiz Khalifa, Jason Derulo, Avicii, DJ Hardwell, DeadMau5 David Guetta, Armin Van Buuren, Above and Beyond etc.

We have worked with several of the big festivals in India including NH7, Serendipity and have also supplied

equipment for several large religious and social organisations including the Dalai Lama, Sri Sri Ravi Shankar, Sadh Guru, and the late Sai Baba. Our bread and butter and daily business is primarily in the corporate sector. We have done the largest corporate events in India including SAP Tech Ed, Google Developer Days, IBM's Town Hall with their CEO Gennie Romerty etc. In the political arena, we have done large-scale election Rallies for our Prime Minister Narendra Modi and other leaders like Rahul Gandhi and KCR in Hyderabad. Regarding prospective work in 2019, we do have several projects in the pipeline, but keeping in mind the NDA's signed, I am not at liberty to mention these at the moment.

**What is your perception of the live events industry in India today?**

Looking back at where I started in 1982 with a small system on a cycle rickshaw, for sure, we have come a long, long way. The market has grown, there are several big players in our industry who are doing quite well and run a fairly professional business. One of the key factors that will need realignment in the future is the fact that many in the industry use short cuts to do an event as they want to save costs and increase profits. Many undercut on pricing to get business. These short cuts don't work in the long run. Safety is a non-negotiable factor, and the industry needs to recognize this and while many organisers do know this, they talk about it as if they are saints and willfully ignore it when doing their own events as the sole motive is to increase profits. Also, equipment rental companies need to focus more on training and equipment knowledge, safety parameters, and WHEN TO SAY NO to a client. Ideally, forming industry related associations that can have proper training programs and a common platform to improve on safety, and look after the welfare of both staff and equipment maintenance, is the right way forward as is being done in other countries.



(Continued from page 56)

- **Classification of Sound Equipment:** The law has equated loudspeakers, public address system and the music instruments by classifying them in the same category. There is no clear differentiation to distinguish sound systems (referred to as DJ systems

no matter what kind of a system it really is) from the other musical instruments while issuing such bans. All sound systems are not the same. Sound systems used in large events are a different from sound systems used in Ganpati pandals.

Putting a blanket ban on the use of sound systems for only specific live sound events or cultural events isn't going to help anybody. What will help is practical and concrete resolutions put in place wherein the audio industry is streamlined audio industry licensing be-

comes mandatory. All rental companies need to be licensed and compulsorily registered with the municipal corporation and a system needs to be put in place where there is some sort of monitoring where the license is revoked after repeated violations of the law (which too needs to be revised).

Bringing Lord Ganesha to every street of the city is a tradition that is by, of and for the people. When the masses chant Ganpati bappa morya during immersions, the decibel levels are far louder than the sound systems. It is an occasion

that people across caste and religion look forward too. Let's all celebrate that spirit, with concrete and practical laws in place, supported by proper implementation instead of putting a blanket ban.

The session on "Noise Pollution Control Killing Music" at the **PALM Summit –Conference & Seminar on 31st May** will discuss and debate knowledgeably about noise and decibel levels at live sound events, the balance between organized cultural shows/live sound events and noise on the streets and wherein lies the golden medium.



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# Complete Audio Solutions from Honeywell



*Honeywell is the new entrant on the block in the professional sound segment with 'Honeywell ProSound'. The series is a perfect adjacency to Honeywell's current PAVA business offering solutions to new verticals like hospitality, entertainment zones, clubs, amphitheatres, and auditoriums. In this interview, Amit Kaushal, General Manager, Honeywell Building Technologies, India gives us an insight into the new vertical and the products.*

**- Amit Kaushal, General Manager,  
Honeywell Building Technologies, India**

**H**oneywell, which is known for making great voice evacuations, has recently entered the professional audio market. What is the reason or thought process behind this new venture?

Honeywell is a global leader offering cutting-edge innovation, superior quality and uncompromising safety. No matter what you are looking for, extraordinary sound performance, easy installation, maintenance, cost effectiveness, or an aesthetic design, Honeywell caters to all your needs.

An extension of the Honeywell Public Address and Voice Alarm (PAVA) solutions, known for its intelligibility and durability, Honeywell ProSound speakers will enable the company to offer solutions to new verticals like hotels, malls, multiplexes, amphitheatres, clubs, educational institutions, and auditoriums. With the launch of this category, Honeywell becomes a complete audio solutions provider with an attractive combination of products, meeting internationally recognized industry standards that ensures superior sound, appealing design, reliability and excellent performance.

**Today, there are too many pro-sound speaker manufacturers to count. How do you expect to succeed in this business, given all the competition? And how will Honeywell remain relevant in the pro-sound speaker business going forward?**

It's true that there are exciting players. At Honeywell, we pride ourselves on our customer intimacy, channel reach and quality of products that we launch. Our ProSound portfolio is receiving great response. Some of the products have already been implemented at some of the leading clubs, educational and commercial establishments in India. We are confident that the speaker range will prove to be a premium offering for our discerning customers and its cutting-edge innovation, superior quality, uncompromising safety, and extraordinary sound performance, will resonate well with the industry. The Honeywell Building Technologies team will also give expert engineering support to our partners for large projects to

ensure that it differentiates itself from competition.

**Honeywell quality is well understood across the world. How do you propose to maintain that quality in the pro-sound speaker business? Tell us a little about Honeywell's R&D process for the pro-sound speakers and a little about the production facility?**

Honeywell PAVA solutions have been designed to meet the internationally recognized industry standards that ensure high reliability and excellent performance even in extreme conditions. Built with the same DNA as Honeywell Voice Evacuation solutions, we plan to

bring forth the same world-renowned quality and technology to India with the ProSound category as well.

The Honeywell engineers use state of the art techniques, measurement systems, and use high quality components to ensure that the products released sound pristine. The Honeywell 5 stage NPI process is a market forward – technology-backed approach where the acoustic engineers look at the latest technology and take feedback from market trends to bring out the best in class products. Our production facility is equipped with the best CNC machines, acoustic testing labs, anechoic chambers, and measurement systems.





**What has been your approach to designing the new speaker systems and how much would you say that these speakers employ "state-of-the art design"?**

Honeywell PAVA range is a perfect combination of appealing design, superior sound reproduction, and easy installation. Wherever sound acts as a major intermediary to spreading information, Honeywell's speakers provide operational efficiency and a secure environment. All speakers are 100v with inbuilt LMT to match industrial standards.

An extension of the PAVA solutions, the Honeywell ProSound speakers are specially crafted to cater to verticals namely: hospitality, sports complexes, performance venues, clubs, amphitheatres, and auditoriums.

The Honeywell ProSound speakers are all active speakers, with built in high quality amplification. The portfolio also caters to the mass-mid segment as well as the premium segment with its high directivity line arrays. Most of the products are plug and play and focuses on premium quality audio.

Furthermore, all the three categories of the ProSound range are designed keeping in mind specific requirements such as:

- Honeywell ProZeta – this range is

capable of providing a high volume of sound in easy-to-transport and set-up models, and is suitable for DJs and travelling musicians

- Honeywell ProAlpha - this range comprises of high-definition speakers ideal for touring and installation purposes, inbuilt with high-quality amplification. It comes in reliable high-quality wooden cabinets with built-in DSP for HD sound with multiple presets available for any application
- Honeywell ProZoe – this range comes with unparalleled sound quality with premium active line array technology. It is available in versatile cabinets, designed to suit indoors or outdoors requirements. The ProZoe range comes with a 32-bit DSP processor and a software to maximize the built-in DSP engine

**In India, in which segment (fixed install, rental etc.) do you see most potential for the new pro-sound speakers and how do you plan to infiltrate those segments?**

Honeywell Building Technologies will operate through two distinct channels. One, through authorized partners, where customers require high level of engineering and technical expertise and

the other is the small medium business distributor channel, where plug-and-play products can be sold directly to consumers.

At the same time, we also understand that there is a big rental market in the country, especially around big seasonal events such as Ganesh Chaturthi, Durga Pooja, Diwali season, wedding season, etc. These events also require quality DJs and speakers, which these companies mainly acquire by renting the hardware through distributors. For this category, we are working with different channel partners who will be able to target this market as well.

**If you have to name one single component most responsible for sound clarity in ProZeta, ProAlpha and ProZoe what would it be?**

For Pro-Zeta, we have ensured that the cabinet design would enable better sound quality though its made of ABS. Likewise in the Pro-Alpha series, the high quality neodymium customized drivers will make the difference as far as sonic performance is concerned. As far as ProZoe series is concerned, the built in 32bit DSP coupled with optimized presets will ensure high directivity in various settings.

**Honeywell pro-sound systems – rather**

**expensive or quite affordable? What would be the price range in INR?**

The price point of the Honeywell ProSound speakers will be very attractive. The end user and the system integrator will find the products to be a value for money. The cost will vary depending on the size of the facility and the usage requirement.

**What are the company's short and long-term goals for the India market with respect to the pro-sound segment?**

Since the launch of ProSound speakers is an India-led initiative, our primary and short-term goal is to introduce the product range to the relevant audience and deploy proper channels through which we can service them in the long-run. The initial feedback we have received from the market and through our partners is very promising. It is encouraging us to think beyond and plan ahead. Our long-term goal is to carve a market share for the product category, backed by Honeywell's global legacy of customer trust, superior quality, and technology. We want to optimize our resources in-country including local sales, local marketing, local technical support and manufacturing facilities in order to create more relevant products for our Indian and global audiences.



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# 11 QUESTIONS WITH **Josef Valchar**

*Rasesh Parekh pitches in with valuable inputs*

**Czech Republic based Robe has managed to consolidate its position as one of the leading manufacturers of entertainment events lighting in the world. The PT team met CEO **Josef Valchar**, the face of Robe Lighting and **Rasesh Parekh** of Integrated Entertainment Solutions, exclusive distributors of Robe in India, during one of Valchar's recent visits to Mumbai. In this interview, Valchar provides insights to how the company has listened to its customers across the world and acted on to ensure that products and services are constantly kept evolving and moving forward, while also reinforcing its sales network globally. Parekh pitches in with information on the growth trajectory of Robe in India.**

**What was the main factor that helped Robe become a leading manufacturer in the professional lighting market and what philosophy helped Robe establish the company as a major brand?**

**JF:** There are a number of factors! Firstly, we have listened carefully and carried out extensive market research to establish what is being demanded and have designed products based on this ongoing process. The product ranges are geared to multiple and specific sectors of professional lighting. We are continuously investing in R&D.

We have a talented 'international' team of experts, which includes regional sales managers; subsidiaries have been established in some of the key markets – this is ongoing – and we have set up a solid and committed global network of distributors.

Everyone involved in this has been hand-picked for their passion and their understanding of key elements like outstanding customer service and the value of the 'personal touch'. We have



**Josef Valchar (l) and Rasesh Parekh (r)**

also been extremely proactive about being 'out there' in the industry – communicating with those in the front line of business and creativity, getting direct feedback and taking an interest in people's work and how they see the world of show visuals developing. We also keep a keen eye on tech trends 'chatter'. Back at base in CZ, we have a streamlined operation that is a big part of the community in the region, and our staff are also invested in the company and therefore all of our futures.

We are independently owned – me and my business partner and Robe Co-founder **Ladislav Petrek** – we are still fully involved in the day-to-day running of the company, and we can make decisions quickly and nimbly.

Being independent has really assisted us in being agile in business and planning, and it also makes us accessible to end users – rather than concealed behind layers of faceless management!

**What according to you are the three main milestones in terms of product development in the history of Robe?**

**JF:** That's difficult as there have been so many over the years, however, I'd say the real 'game-changing' product moments for the company are:

2010: Safe to say that the launch of the LEDWash 600 in 2010 was a 'watershed' moment. It wasn't the first LED wash light, BUT, hand on heart, I can say it was the best! That really was a transitional moment for Robe. We corrected many of the issues that had been present in the first generation of moving LED wash lights released by others, we waited and were patient!

And after this product, anyone who had not yet taken Robe as a serious contender in the world of moving lights, started to do so!

Then there was the BMFL launch in 2014:

This series of fixture was around three years in development, and it became our signature most powerful 'bright multi-functional luminaire'. Launching a range of products like this was ahead of the game and a strategy that definitely put us further on the map. It also assisted in 'cracking' the all-important North American Market.

Then in 2017 we launched the MegaPointe, and that became our single best-selling product ever to date – so much so, we had to purchase, kit-out and open a whole new factory and production facility to keep up with the demand! It was and still is THE light that everyone wants.

**Why did you rebrand Show Lighting to "Robe lighting" in 2007?**

**JF:** This was to define Robe as a truly 'Professional' / commercial brand and leave behind the association with OEM manufacturing. It expressed a progression in our development – the name is shorter, memorable, it has a nicely formed logo and the distinctive red dot!

**Over 600 employees work at Robe's primary 55 000 square metre facility in Valašské Meziříčí. Do you have manufacturing units in other parts of the world too? For instance, are you also manufacturing in China? If yes, how do you maintain that quality when using manufacturing locations located outside Czech Republic?**

**JF:** The HQ and factory – where everything is made – is in Valašské Meziříčí (Valmez) in the north eastern part of the Czech Republic.

In 2018 – in response to the incredible success of the Spider in 2016 and the MegaPointe in 2017 as mentioned above, we opened another manufacturing plant in Karvina,

near Ostrava, CZ's third city, and around 100Km from HQ in Valmez

We have subsidiaries in the UK, North America, France, Germany, the Middle East and Asia Pacific.

There are currently around 800 employees worldwide working across all these sites

We are absolutely NOT manufacturing in China and Robe has no plans to do so. Quality control is vital to our success and the only way we can guarantee this is to manufacture at our base in Czech Republic, and everything is made there. We are even now making the LED engines at base.

However, it's not just about that. Obviously we are a business and we need to be profitable, but we have spent many years building a working community in Valmez, and we take our responsibilities and commitments as one of the largest and most significant employers in the region very seriously.

Working for Robe is considered a good and sought-after job, we like to offer potential career development and opportunities in various different departments, and Ladislav and I are dedicated to ensuring that this continues in the future.

#### **Tell us a little about the Research & Development process and R&D team at Robe?**

**JF:** That is information that we don't really divulge publicly.

#### **What excites you about lighting technology and the lighting industry today and what do you think is going to be the next biggest innovation in lighting after LED?**

**JF:** Well, LED technology continues to get more better and more sophisticated all the time – the light engines are getting smoother, brighter and more efficient constantly ... so I don't think that has reached anything like a plateau yet.

We are seeing a lot of very cool things going on in the integration of video and lighting. Control protocols that enable video sources to be easily used to run through lighting fixtures and produce different effects and the potential power and stability possible through networking and networked environments is only just starting!

It's not just the tech that excites me, I am really interested in how creative people are utilizing it. That infinitely emerging world of ideas and imagination, creative, smart and resourceful people pushing the envelope... because to a large extent, all of the manufacturers are reacting to the demands and needs generated by their art and visions.

#### **Which is the biggest market for Robe worldwide? And in which segments do you see major growth for the lighting industry?**

**JF:** All markets are 'big' for us in terms of their importance! There are many areas that are thriving, many that are developing or emerging – it is also relative to many things – economic wealth, urban development, culture, geography, population density, geo-political concerns, etc.

As for 'Growth segments' currently we are strong in rental / staging and concert touring, live performance venues, television and theatre productions and workspaces. I think there's going to be more 'architainment' applications in the future as the general awareness of lighting

environments increases.

And that's why we are working on our Robe-Anolis range, to capitalize on that market which covers everything from buildings to retail centers, public art projects at one end of the spectrum to commercial built environments like airports and hospitals on the other and including theme parks and other built environments.

#### **Central to the company's philosophy is the practice of working as closely with business partners and end users as possible, listening to their needs, thoughts and wishes and understanding their markets and requirements. So, has Robe designed or manufactured anything specifically keeping in mind the Indian market dynamics?**

**JF:** I will be honest about the fact that India is a 'challenging' market. There is a lot of price driven decisions made by productions and on projects, so it is intensely competitive. But on the other – and this is where we can do well – there is also a demand in certain sectors for quality.

We have a great relationship with our distributor IES – and we trust their experience and judgement in targeting the areas where we can gain traction based on quality rather than lowest pricing.

We also have a wide range of LED fixtures now – from the little LEDBeam 150s to the VIVA spot and the refined DL range and now the T1 for theatres and very precise applications. Having this wide product range gives people a lot of choice and flexibility, and more good LED products will be launched later this year all of which are of interest to the busy live, film and TV markets in India.

The entertainment industry in India is extremely vibrant and lively! There is a huge and diverse mix of spectacular and very detailed productions happening and many brilliant creative and technical individuals who are trailblazing – and we have a wide product range to cover lighting in these multiple sectors.

I would also say that personally I love the color and the flair of India – the diversity and the energy! I have visited twice in the last six months and will continue to do so as our business there builds

#### **Is demand for lighting in entertainment more challenging in the US and Europe, than in**

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**We are seeing a lot of very cool things going on in the integration of video and lighting. Control protocols that enable video sources to be easily used to run through lighting fixtures and produce different effects and the potential power and stability possible through networking and networked environments is only just starting!**

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#### **countries like India?**

**JF:** I think the 'demand' is basically the same on a creative level, wherever you are in the world!

The power that good lighting can bring to so many different environments in terms of evoking an emotional response or an experience is really intense, and the essence of this is something that exists everywhere, rather than something that is specific to regions.

So, it's the 'delivery' that I think is more challenging!

#### **Tell us about your engagement with the Indian market and the role your distributor IES has played in popularizing the brand in India**

**JF:** IES is doing a great job – they have a great and highly enthusiastic team in place who know the market well. They appreciate the value of holding out for quality, and the last couple of years has seen some good and substantial investments in Robe fixtures by some key market players.

#### **In India, in which segment (fixed install, rental etc.) do you see most potential for Robe lighting?**

**RP:** All verticals, rental, installation markets are seeing a good growth in the qualitative segment. All rental companies aspire to buy a good branded product which besides delivering great quality, lasts long enough for them to account as an asset and can give them return on their investment for years to come. That is the USP of buying branded fixtures for the rental market. Every large rental company started with only branded fixtures as their major base and built it on that as those fixtures are still working!!

Installation market is maturing, they are opting for fixtures which work day in and out, night after night rather than breaking down every other day. It has seen a cycle where they did go for cheaper products but eventually come back to quality fixtures.

Indian lighting industry is maturing along with advances in technology. It is beginning to recognize the value of quality products more than ever before. Quality never goes out of style.

#### **How do you think the stage lighting industry has changed globally in the last five years? And how do you think India fits into this global scenario?**

**RP:** Stage lighting is evolving very rapidly world-wide, from discharge lamps to LED, a whole world in projection led and laser Projectors, LED walls etc. is changing the STAGE like never before. Globally, the change is evident as greener laws will change the fixtures used.

The Indian stage is on this path too, slowly but steadily it has seen the adoption of latest technology being used in some of the best stages. IES & ROBE has been proud to be associated with them. Indian Stage has come a long way in terms of design and we are seeing very creative designs and quality equipment being used and this upward trend will continue



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## 3D IN EAR MIXING

**D**isclaimer – You can use this technology with your standard earphones, custom built in-ears as well as headphones, off course the better the quality the better the experience

When I first brushed about this technology a couple of years ago I had my reservations that this must be another mumbo jumbo spatial surround sound device and a typical new thing on the block that everyone talks about on trade fairs and that we must go and take a listen.

Whilst all the big players in the loudspeaker market are spending millions of dollars on their immersive audio market there was a small eco-system that saw that nobody was doing Immersive audio for IEM monitoring and forged ahead there, which culminated into a mature hardware/software solution. The moment I plugged the headphones on the booth, moving from stereo to spatial completely moved me and suddenly I figured that this is something special really special, however it wasn't over out here because moving back from 3D to stereo was like 'how the hell I have been working in this 2D space for all these years' and that is really what leaves you thinking as to how amazing your monitoring world would be, to place the sound sources not just between left and right in your ears put into a 3D space. Welcome to the world of 3D Immersive Mixing.

Unlike the limitations of PA systems in venues in 3D monitoring the artist keeps both his earpieces in his or her ears then as a monitor engineer you have the creativity of spatial positioning and not panning the entire bands in-ears wherever you would like to create more room for your various sound sources.

3D in-ear monitoring is designed

to be inserted into the existing signal chain between the monitor console and the IEMs (be they wired or wireless) and while the processing required is prodigious the process itself is really quite simple. It fabricates the kind of inter-aural delays and filtering that occur in the natural world, which our brains decode to give us accurate information on the place-

While a monitor console is still required it is relegated to a slightly subservient role where it just provides the inputs and channel processing. The separation you get in 3D mode means you don't have to work quite so hard to ensure instruments don't overlap and mask each other's frequencies, which should help ensure less muddy mixes but could

a fully realised end solution to a problem none of us knew existed. It's one of those exciting new technologies that shift the paradigm. I fully expect that once people have tried it out they won't want to go back to boring old 2D ears

Why does this feel right the moment you listen to it is because the experience is more authentic and real-to-life than what a stereo-only representation provides.

A lot of people also think that this is really only for softer music and orchestral applications best however it is been proven on the road when it comes to heavy metal, playing songs fast and with the double bass its very hard to get the definition and now you can spatially place band, fx, vocals, ambience mics in 3D and there is a huge metal eco-system growing around 3D monitoring too.

The size of your mix, the quality of your mix, clarity, definition, space is something todays monitor engineers are seeking, they want to pick things out, they wish to create a lot more space in tiny drivers to make big wide sounding mixes at lower levels and really improve efficient workflow within the console, today you can realize that dream with 3D mixing.

For a monitor engineer the ultimate goal is exactly hearing what their artist is hearing and the trust level from stage to monitor-land to front of house has just got better.

**“A lot of people also think that this is really only for softer music and orchestral applications best however it is been proven on the road when it comes to heavy metal, playing songs fast and with the double bass its very hard to get the definition and now you can spatially place band, fx, vocals, ambience mics in 3D and there is a huge metal eco-system growing around 3D monitoring too.”**

ment of sound sources in a three dimensional sound field.

What will strike you is the degree of separation you get – it really lets you hear each individual instrument in its own space and makes the mix sound much more natural. After using it for a while switching back to stereo operation is a bit of a shock as the mix just collapses in your head and sits boringly between your ears – You have to then remind yourself that this is what every IEM mix normally sounds like. In ways to explain aurally what you would feel would be like moving from Black & White to Colour TV and then going back to B&W after you come back into stereo.

make it possible for non-engineers (or even the band themselves) to mix the monitors.

Interestingly, under development an addition to the technologies are embedding a small motion tracker into your IEMs and enables the mix to respond to your head and body movements on stage and thus mimic the physical position of the instruments, keeping them anchored in space as you move around. There's a lot of buzz right now about virtual reality but this promises virtual aurality.

What amazes me is how this technology has arrived fully formed – this is not a beta version of a concept which will improve over time but

Warren D'souza - Founder,  
Managing Director, & Working  
Member of Sound.Com  
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# Indoor Compact Line Array

Now in its second year the **PALM Indoor Line Array** has grown from three slots in 2018 to six in 2019. Below is a listing of the five line arrays that will be demoed at PALM in the Indoor Line Array section. The **INDOOR LINE ARRAY DEMO DESIGN GUIDELINE** was derived from various inputs of Line Array theory published by market majors in the field of line array. The objective of this demo feature is to demonstrate a Line Array rig in an acoustically and dimensionally challenging space.

## Dare Audio - L8-24/S8-24

The Extremely high SPL coming out of the Compact Line Array is the latest introduction to the Line of Dare Audio Systems. The system is from the Series 8 Line of products which promises a lot of improvements from its predecessors. These Active Speakers are Powered by extremely efficient Built In DSP Amplifiers for High Quality Sound Output. The most unique feature is the Digital Network Transmission (Cante - Upgradable to Dante) at an extremely affordable price.

### Main Features include:

- Digital Networking Transmission (Cante/ Dante)
- Extremely High SPL with 126db at 125Metre distance
- Extremely Versatile with wide applications
- Software Controlled Parameters (Ease of use)
- Provision for Redundancy
- DIP Switch on Speakers for quick Audio Signal Selection
- Frequency Range - 22Hz - 22KHz
- Light Weight for ease of Rigging
- DSP provided along with software
- Long Throws for Big Shows
- Remote control for Ease of Management
- RJ45 Signal Ports for Digital Network Transmission
- Lossless transmission for long distances

### Tech Specifications:

- **L8-24**
  - Built in Class D Amp
  - RJ45 Connector - 2



- Daisy Chain Option
- **Dimensions (WXHDXD):** 820 X 340 X 400 (mm)
- **Transducers:** 2X12"Nd + 2X1.8"Nd
- **Impedance:** LF: 8Ω; HF: 8Ω
- **Power Rating:**700/2800W
- **Sensitivity:** 103db
- **SPL Max:** 145db
- **Freq Range:** 60Hz-22Khz
- **Coverage:** 110 X 15
- **Weight:** 33kg
- **S8-24**
  - Built in Class D Amp
  - RJ45 Connector - 2
  - Daisy Chain Option
  - **Dimensions (WXHDXD):** 660X820X600 mm
  - **Transducers:** 1X24"
  - **Impedance:** 4Ω
  - **Power Rating:** 800/3200W
  - **Sensitivity:** 102db

## Harmonic Design HLS24

The HybridLineSource is a new and worldwide unique loudspeaker system developed by Harmonic Design, which reduces the needed truck space dramatically and improves the quality of a public address system to a new level of uniformity and complete absence of distortions.

The TourSys-2 Features 2 HLS24 Tops, 4 Infra 218 Subs and 2 Powersoft Amps Powering the entire setup firing upto 12,800 R.M.S. capable of supporting an audience of 1500 People.

### Main Features include:

- HLS24 TOPS
  - Horn Loaded, Vented Coaxial and Line Array Enclosure
  - Frequency and Phase optimised Cross-over
  - Innovative Hybrid Design
  - Extremely high SPL of 144db
  - Peak Power of 4800W
  - Coverage of 100 X 40
  - Dynamic Range below 60Hz
  - Fast Rigging System



- Infra218 Subwoofers
  - Hybrid Enclosure
  - Low frequencies of up to 28Hz
  - Extremely High SPL - 149db
  - Peak Power 14400W
  - Passive Directivity
  - 2X M20 flange
- Powersoft Amplifiers X-4 and X-8
- Flight Case for HLS24
- Soft Case for Infra218
- Compact dimensions
- Light Handling
- System Power - 12800 RMS
- Remote Surveillance and Remote Control
- Plug and Play

### Technical Specifications:

- **Dimensions (WXHDXD):** 480 X 675 X 560 (mm)
- **Transducers:** 2X12"N + 4X1.4"N
- **Impedance LF:** 4Ω ; HF : 8Ω
- **Power Rating:** 1200/4800W
- **Sensitivity:** LF 108db; HF 110db
- **SPL Max:** 144db
- **Freq Range:** 60Hz-20Khz
- **Infra:** 218
- **Dimensions (WXHDXD):** 1190X536X670 mm



- **Transducers:** 2X18"N
- **Impedance:** 4Ω
- **Power Rating:** 3600/14400W
- **Sensitivity:** 106db
- **SPL Max:** 149db
- **Frequency Range:** 28Hz - 90Hz
- **Weight:** 89kg
- **Powersoft X4 and X8**
- **4X XLR/Dante & 8X XLR/Dante**
- **DSP Filter:** FIR/IIR
- **Class D Amplifier**
- **RMS @ 4Ω:** 4X3000W and 8X300W
- **Protection Circuits:** Yes
- **Weight:** 15g & 24kg

### Zsound LC10, LC10SP, LC18P

This product is a combination of three different models i.e. Zsound LC10 line array, LC10SP 15" Self-powered subwoofer and LC18P 18" subwoofer.

LC10 is a professional coaxial single 10"-line array speaker is extremely compact and light weight. LC10SP is a compact and omnidirectional 15" Self-powered subwoofer with a built-in amplifier for LC10. Another one is portable and easy to transport omnidirectional LC18P 18" subwoofer which can deliver a maximum SPL of 136dB.

#### Main Features include:

- Zsound LC10:
  - Full-range small Line Array Spaker system
  - 50Meter long throw, smooth voice at high frequency
  - Neodymium high-sensitivity driver
  - Compact two-way passive system, 16ohm nominal impedance
- Zsound LC10SP
  - Self-powered subwoofer for LC10 Line Ar-ray speaker system
  - Omnidirectional Nominal Coverage
  - Air Flow from back to front cooling system
  - Dual channel 1200-watt amplifier module
- Zsound LC18P
  - Works best with LC10 speakers
  - Its surface has the design to carry two LC10 Speakers.

#### Technical Specifications:

- Zsound LC10:
  - **Frequency Response:** 60Hz-18KHz



(±3dB) 50Hz-20KHz(-10dB)

- **Sensitivity (@1w/1m):** HF/LF: 112dB SPL / 96dB SPL
- **Nominal Impedance:** HF/LF: 16/16ohm
- **Maximum SPL:** HF 138 dB SPL Peak / LF 132 dB SPL Peak
- **Dimension (H\*W\*D):** 304\*360\*260mm
- **Weights:** 13kg / 27lbs
- Zsound LC10SP
  - **Frequency Response:** 30Hz-150Hz (±3dB)
  - **Maximum SPL:** 130 dB SPL Peak
  - **Dimension (H\*W\*D):** 384\*663\*620mm
  - **Weights:** 35kg / 77lbs
- Zsound LC18P
  - **Frequency Response:** 28Hz-250Hz (±3dB)
  - **Power Requirement:** 200-240v-50-60Hz / 0.82%
  - **Dimension (H\*W\*D):** 938\*638\*700mm

### Magnetic Stimulator10A and PK 815A

Stimulator is a two-way line array.

#### Main Features include:

- 96KHz sample rate, floating point DSP3300 watt
- 2-way amplifier
- Can be used through WIFI
- 85-266V with PFC
- Intelligent sleep and wake-up<1



PK-815A is a 2-way, 15" high-performance light weight active loudspeaker.

#### Main Features include:

- 96KHz sample rates, floating point DSP 3300 watt
- 2-way amplifier
- Can be controlled through WIFI
- 85-266V with PFC
- Intelligent sleep and wake-up<1 Z




  
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## THE LIVE MUSIC INDUSTRY IN INDIA

Music not only surpasses the barriers of language or culture, it's a soul-stirrer that strikes a chord directly with our emotions and energizes us. Music is a form of art and expression that has the power to rejuvenate and connect. Roy Ayers, calling himself a messenger rightly said "The true beauty of music is that it connects people. It carries a message, and we, the musicians, are the messengers".

Over last one decade, the adoption of audio technology and market for international music has evolved manifold in India. The exposure to global music and internet penetration with smartphone has acted as a gamechanger for audio industry. A recent report released by IFPI, a body representing the recording industry worldwide, India, currently ranked 15th in the world, is well-positioned to break into the top 10 music markets by 2022. The global recorded music market grew by 9.7% in 2018 and this is the fourth consecutive year of growth for the industry.

There are so many indigenous bands that are doing great these days, the passion and love for music has led to the rise of live concerts. Listening to live music have now become a trend, it has become an integral part of all kinds of events. The millennials are enthusiastic to watch their favorite artists perform on stage and the global artists have India as their preferred destination. Today's audience is increasingly looking for one important thing – a memorable experience, which is only possible with good artists and world-class audio technology. The dire need for worthwhile experiences has seeped into the music consumption patterns of the listener. While people are consuming music on-the-go with their headphones/earphones or at home on speakers, every now and then, consumers wish to experience the music it to the fullest through live concerts. It's like watch a movie on theatre or your television, while the content is same, the experience matters.

If you come to think of it, considering how hectic and deadline-driven the everyday lives of today's generation is, it is natural for people to look for ways and opportunities to



– Vipin Pungalia, Director - Professional Segment, Sennheiser Electronics India.

de-stress and rejuvenate themselves. Increasingly, we have witnessed that millennials are looking for a holistic experience that would help them keep their spirits alive and escape from the monotonous routines. The setting of a live concert or a live stage performance is what makes for a memorable experience – far greater than listening to a song by yourself on your headphone – an ambience of fun and excitement where

over 1.5 Lakh people, a number that has been steadily increasing since. They have also laid the foundation for smaller festivals to take root. Over the past couple of years, these festivals attract loyal audience, who act as brand evangelists for such events and further attract more music lovers to festivals nationwide.

The emergence of conventional and non-conventional venues for live music has led to a healthy demand for both home-grown and international live entertainment in the country. Despite the industry-wide shift in consumer spending, the growth of live music looks to continue unimpeded for years to come, as real-life experiences encounter a surge in popularity.

A FICCI-KPMG 2016 report sated the size of India's music industry at Rs 1,080 crore in 2015 is expected to grow to Rs 2,060 crore by 2020. Social media buzz has also contributed to the growth of the music festivals in India. Approximately nearly 25 festivals are held each year in India. With music festivals going mainstream in India, event produc-

young audiences in more immersive ways, they are increasingly cashing in on emerging trends such as music streaming and multi-day music festivals to make sure that their brand is present and visible where the millennials are. Today, India has become a high-potential market for experimental and experiential music events.

Having said that, despite the live music industry growing at an unprecedented rate in India today, what tends to often go unnoticed is the importance and significance of the professional equipments that contributes in numerous ways the overall experience. It is the perfect amalgamation of technology and equipment with music that can create a masterpiece. Every single artist takes their professional instruments and equipment extremely seriously, focusing a lot on their quality, because it could make or break their performance. In other words, professional equipment is indispensable to any artist.

Understanding the needs of the live performing industry, multiple live performance gear is available in the market that cater to those needs and requirements. Sennheiser, is globally recognised for launching the best of audio technology globally. The company has a wide range of product portfolio that focuses on live music and live performers. The EW series of wireless microphone by Sennheiser offers best-in-class audio output and is one the most popular Sennheiser product across the globe. Recently, Sennheiser also launched three new monitoring in-ears- IE 40 pro, IE 400 pro and IE500 pro designed for music creator and live performers.

India has always been a music loving country. Considering the way today's audience is seeking memorable experiences and the ever-increasing footfalls at music concerts, the live music industry will continue to grow in India in the coming years. This will have a direct impact in the demand for superior professional equipment with cutting-edge technology, making it important for brands like us to constantly innovate and create the best to provide an impetus to this growing culture.

“Today, India has become a high-potential market for experimental and experiential music events.”

hundreds of people with a synergy in music preference come together to watch their favourite artist or band perform live in front of them. The vibe is electric, contagious and like no other.

So, while recording is an important aspect of the music industry, live entertainment as a format has gained momentum. India is a country with a booming live music industry. Over the past decade, the popularity of music festivals has increased drastically. Bacardi NH7 Weekender and Sunburn are two of the biggest and most popular festivals that see large numbers of footfalls from across the country. In 2012, Sunburn drew

ers over the past two to three years have recorded millions in ticket sales and sponsorship revenues, ensuring the sustainability of these events in the future as well. As a direct consequence of the rising popularity of music festivals, there is an unprecedented surge in the number of independent artists across genres who are making the most of digital platforms and live events to find their audience. While Bollywood dominates music consumption in our country, the indie music scene in India is gradually maturing, and things are looking up for independent artistes.

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## ELATION'S ARTISTE VAN GOGH NOW SHIPPING

Elation Professional has expanded its award-winning Artiste line of theatrical-grade moving heads with the new **Artiste Van Gogh**, a LED wash luminaire suited for television, theatre and corporate events, but has application anywhere powerful and even wash coverage is desired.

An efficient 380W Bright White, high-CRI LED engine (6,200K) emits up to 16,000 lumens of high-quality, flat-field light. With a high colour rendering index of 92, the Artiste Van Gogh is exceptional at accurately displaying colours for vivid shades that positively radiate and textures that really stand out. It excels at maintaining an even

distribution of light and an even colour temperature across a surface for a smooth wash and consistent light quality that looks great on camera and in person.

A 16-bit CMY colour-mixing system with a seamless CTO filter offers the designer a wide colour range from subtle pastels to vibrant primaries. A seven-position colour wheel is provided for added colour customization and includes a dedicated UV filter.

The ability to control precisely the shape of the light beam is essential in television and theatrical lighting. The Artiste Van Gogh excels with an internal 4-blade, full

blackout, barn door system that allows for beam shaping and accurate light control at any angle. The entire barn door assembly is indexable, allowing the beam to be shaped and angled as required for accurate highlighting of set pieces and performers. Designers can also use the flexible framing system to create outstanding projection or mid-air effects.

The Artiste Van Gogh comes equipped with all the professional control and connection features that designers would expect from a cutting-edge luminaire.



## AO TECHNOLOGY LAUNCHES AO DRONES 'LIGHT EXPERIENCES'

AO Technology has launched **AO Drones**, a brand-new division in its portfolio of innovative visual design services, heralding 'a new dimension in creative visual design'. AO Drones' mission – to enhance all types and sizes of events and performances with spectacularly choreographed, volumetric images in the sky.

Utilizing advanced technology, developed specifically for entertainment applications, AO Drones' software facilitates flexible, fast show creation for both indoor and outdoor environments.

"We're thrilled to bring AO Drones to the market," says AO producer, **Marco Niedermeier**. "Over the last couple of years we've merged 25 years of experience in visual design and entertainment technology development with this innovative new drone technology, to enable live visual design to achieve a whole new level of spectacular."

Of course, it's not just about the kit for the business, as Niedermeier explains. "AO Drones offers our clients full-service 3D pre-visualisation using 3D design software and 3D video rendering, plus we have a global network of trained pilots, creatives and technicians who can work with our clients to deliver mind-blowing visual designs in the sky."

Drones, when used imaginatively, can bring a rich, dynamic layer of content to any show designer's

palette. "The fact that drones can move freely in three-dimensional space can add another layer of value and meaning to a show – the artistic possibilities are endless," adds Niedermeier. "In addition, a drone's ability to carry payloads including video tiles, lighting and mirrors can bestow a rich storytelling layer to both artistic and corporate endeavours. It's a very exciting time for show design."

Drones can be deployed individually or in small or large groups. Indeed, large numbers of drones can create stunning swarming effects and deliver vibrant volumetric patterns, which in turn can interact and respond to other elements of a production such as audio, lighting and video.

Each drone unit features high-brightness LED surfaces, offering stunning visual impact and a plethora of colours, resulting in visually captivating shows that can now be enjoyed by audiences over much longer distances.

AO Drones currently serves the Middle East region from its UAE hub and Europe from its German HQ. However, with partnerships in America, Asia and Africa, the business is able to deliver shows worldwide.

"Our mission is to craft the very best drone entertainment experiences in the world. Harnessing ever evolving technology, AO Drones can offer



flight times of up to 20 minutes, considerably more than other models in the marketplace. Our system can also achieve pinpoint accuracy of formations with up to 1cm tolerance at high speeds. AO Drones is also continuing to work with developers to ensure that the system is robust in wet weather," states Niedermeier.

The company says the relatively low weight of each unit makes it possible to transport multiple drones in cargo easily and affordably.

In light of recent issues of drones near airports, AO Drones feature real-time monitoring during operation as standard. Its mission control software allows for the creation of

geo-fenced boundaries ensuring drones remain in pre-determined operating territories throughout their flight. The company also offers comprehensive training for drone 'pilots'.

"We believe AO Drones' new technology heralds the start of an event design revolution," concludes Niedermeier. "This shift will be similar to how moving lights transformed the show design industry three decades ago. Today we can go higher, faster and brighter than ever before and we can do it so much more efficiently. This is a brand new dimension in creative visual design."





## DJ-202

DJ CONTROLLER

- TWO-CHANNEL, FOUR-DECK CONTROLLER FOR SERATO INTRO
- LARGE PLATTERS WITH THE LOWEST AVAILABLE LATENCY, OPTIMIZED FOR SCRATCHING
- EIGHT SOUNDS IN EACH TR KIT: BASS DRUM, SNARE DRUM, CLOSED HAT, OPEN HAT, TOM, RIM, CLAP, AND RIDE



## DJ-505

DJ CONTROLLER

- TWO CHANNELS AND DECK SELECT FOR UP TO FOUR DECKS
- LARGE, LOW-LATENCY PLATTERS OPTIMIZED FOR SCRATCHING
- EIGHT DEDICATED PAD CONTROLS FOR SERATO DJ WITH HOT CUE, ROLL, SLICER, TR, PATTERN, AND SAMPLER MODES

## DJ-808

DJ CONTROLLER

- BUILT-IN ROLAND TR DRUM MACHINE WITH 606, 707, 808, 909 KICKS, SNARES, CLAPS AND HI-HATS
- CONTROL THE SERATO SAMPLER WITH THE TR-S SEQUENCER
- BUILT-IN VT VOICE TRANSFORMER WITH PITCH, FORMANT, DUCKING AND SERATO KEY MATCHING



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**West - Ahmedabad:** Nrutika Enterprise (0971246969), **Jabalpur:** Ajit & His Beats (09425151979), **Mumbai:** Shalu Music (09892642311)  
**Ujjain:** Shree Mahakal Music House (09827006143), **Vijaywada:** Taal Musicals (09392113553), **Vishakhapatnam:** Harmony Musicals (09949466685)



## AYRTON INTRODUCES LEVANTE BASH LIGHT

Ayrton has announced the arrival of its new ultra-compact **Levante 300W LED** wash luminaire which is now ready to ship. The Levante wash light completes Ayrton's trio of 300W LED fixtures as it joins the line up alongside Ayrton's Mistral spot and Diablo profile luminaires.

Levante – the Sculptor of Light Weighing just 22kg, Levante is a dramatically miniaturised version of the Bora wash light, endowed with outstanding performance capabilities in an ultra-compact form that matches the dimensions of Mistral and Diablo.

With Levante, Ayrton has created a wash luminaire that can sculpture light and added a high-transmission diffusion filter to the zoom lens group to erase the edge of the

beam without changing its angle. A variable linear frost system allows the user to adjust the desired diffusion level with precision.

Delivering a stunning light output in excess of 20,000 lumens (Levante-S) through its 138mm frontal lens, Levante's optical system is specially developed for optimum wash applications. Its 13-lens proprietary optical system features a zoom ration in excess of 9:1 and a 6.3° to 58° zoom range and produces an extremely uniform flat beam that ensures a perfect colour mix regardless of the colour combination selected.

Levante's many features include a barndoor module that allows shutters to be positioned freely across 100% of the surface area, a CMY colour

mixing system, a variable CTO and a wheel with seven complementary colours, to create an infinite palette of vivid pastels and saturated colours. In addition, a 15-blade iris diaphragm and a wheel with seven indexable rotating gobos are supplied as standard.

Levante is a marvel of technology, an artist's wash light that will attract the most demanding lighting designers.

Both Levante and its sisters, Diablo and Mistral, are available in two versions: Levante-S is specially designed for stage applications and utilises a monochromatic LED light source that can generate an ultra-high output and metallic white light calibrated at 6500K; Levante-TC is



geared for applications that require perfect colour rendition, and uses a monochromatic LED source with a native CRI greater than 90, high TM30 readings and a 5700K colour temperature.

## PR LIGHTING ANNOUNCES NEW XR 580 FIXTURES

PR Lighting's new **XR 580 BWS** (PR-2552) and **XR 580 Beam** (PR-2554) take the power rating of the popular XR series to new heights thanks to the presence of the Philips MSD Platinum 25R (550W) lamp (with the Osram Sirius HRI 550W XR as an option).

Features include: color wheel with 11 color filters (and CTO plus open), with bi-directional rainbow effect at variable speeds and stepping/linear color changing. Also included are a CMY color mixing system with macro and individual CTO color temperature adjustment (0 – 100%).

The optical path also contains a fixed gobo wheel with 18 gobos plus open, bi-directionally rotatable and shakable at variable speeds, as well as a rotating gobo wheel with seven gobos plus open, which are replaceable.

The fixture provides three prisms: eight-facet, nine-facet, and four-facet, with optional three-facet and 16-facet prisms and frost filter, while the effect wheel can overlap with the gobos.

Other features include motorized linear focus and zoom, strobe (0.3fps – 25fps) and head movement of 540-degrees (pan) and 270-degrees (tilt) with auto position correction



and adjustable speed.

Light angles are 0-degrees to 15-degrees (beam), 1.5-degrees to 41-degrees (spot) and 2.6-degrees to 45-degrees (wash), and DMX512 control provides 23 channels in short mode, 31 channels (standard mode), and 35 channels (extended mode).

The XR 580 Beam offers a similar spec and feature-set but with a two-degree light angle. Control is via DMX512 with 22 channels in short mode, 26 channels (standard mode), and 30 channels (extended mode).

## SHOWTEC DEBUTS EDISON FIXTURES

Showtec has debuted their **Edison Dot E1**, **Edison Star E6** and **Edison Bar E6**, three stylish retro-like fixtures equipped with E27 sockets, the Showtec Edison fixtures offer the lighting designer the possibility to add a finishing touch to his setup, to create atmosphere during an event or accentuate the catwalk during fashion-shows.

Three design fixtures include brackets with daisy chain possibility for the DMX-signal and power. The E27 sockets offer the freedom of completing the show elegantly by adding various Showtec E27 LED filament bulbs.

The Showtec Dot E1 is the smallest fixture of the three with room for 1 E27 bulb. Due to its small size, it can be placed almost everywhere. The Showtec Star E6 accommodates 6 E27 sockets in a hexagon shape. The Edison Bar E6 is the retro bar of the Edison range.

Installing them alongside a catwalk or scattering units in the background of the stage automatically adds a sophisticated feel to the event. Showtec offers a wide range of E27 LED filament bulbs which combined with the Edison fixtures will "get the



feeling of nostalgia and design across perfectly and turn every event into something special".

Next Issue - July-Aug 2019  
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## ADJ UNVEILS ENCORE BURST 200

ADJ has announced the immediate availability of the new **Encore Burst 200** professional audience blinder/strobe unit. This cutting-edge lighting fixture combines the power-saving and long life benefits of an LED light source with the classic blinder effect in a flexible modular weatherproof case design that allows it to be deployed in a variety of different configurations.

The dual lens Encore Burst 200 is powered by a pair of 110W warm white (2700K) CREE COB LEDs, with a 50,000 hour average lifespan, and offers a wide 50-degree beam angle. It is also fitted with an innovative 'Tungsten Mode', which reduces the color temperature to 1200K at low dimmer settings to emulate the warm

glow of filament-based light sources used in classic stage lighting fixtures. This allows it to generate the same effect and comparable, if not brighter, output to traditional blinder fixtures powered by 650W halogen lamps, but using a fraction of the power.

An impressive output of 12,249 LUX (measured at 1M) makes the fixture ideal for use on large stages and productions. It has a CRI of 81 and offers an adjustable LED refresh rate (900-25,000Hz) and gamma brightness (2.0-2.8). Not only are the unit's LEDs ideal for use as an audience blinder effect, but they can also be used to generate a powerful variable speed strobe effect.

A rugged metal housing makes the fixture suitable for use in touring and



rental situations, as well as permanent installations. The case also boasts an IPX4 rating, meaning that it is protected from splashes of water and therefore suitable for use on concert or festival stage productions located

outdoors. The lens array also offers manual tilt adjustment and each of the two LEDs can be controlled independently to allow for pixel-mapping effects.

The casing is also fitted with an aluminum rails system that uses locking pins to allow multiple units to be easily connected together to form a cluster of fixtures in either a vertical or horizontal array. This can be used to create traditional 2x2 and 2x4 blinder configurations, but also allows for other creative arrangements to be put together. Its modular system makes the Encore Burst 200 ideal for rental and production companies, as fixtures can be deployed in different configurations to meet the requirements of individual clients and events.

The fixture is fitted with professional-caliber weatherproof 5-pin XLR input and output sockets, which are also protected with rubber caps. It offers a choice of four DMX channel modes (1, 2, 4 or 6) as well as a selection of five different dimming curves suitable for a variety of applications. DMX addressing and mode selection can be carried out from a convenient 4-digit LED display, with four corresponding weatherproof push buttons, located on the back panel of the fixture.

"We're very much looking forward to introducing the Encore Burst 200 to lighting professionals," comments ADJ USA's National Sales Manager, **Alfred Gonzales**, "because we think they are going to find its creative potential extremely exciting. It offers the authentic effect of a traditional audience blinder, which is an essential component of many tours and almost all festival stages, but using way less power. Its innovative modular design also allows this effect to be deployed in new and interesting ways, while its ability to also serve as a high-power strobe effect further adds to this unique fixture's flexibility."

## EATON'S INTENT TO SPIN OFF ITS LIGHTING BUSINESS

Eaton has announced its intent to pursue a spin-off of its Lighting business, creating an independent, publicly traded company – a transaction expected to be completed by the end of this year.

Included in the spin-off is Eaton's lighting business – UK brands Zero 88, iLight and Greengate which are part of the Lighting Division – plus its global Airport Lighting business and Mains Lighting and Intrusion Systems operations that operate primarily in Europe and the Middle East.

The Crouse-Hinds Industrial Lighting business and Life Safety Division's Emergency Lighting

product lines in Europe, the Middle East and Africa will remain with Eaton.

The Lighting business had sales of \$1.7 billion in 2018 and employs over 5,000 people, so it will be one of the largest global lighting businesses.

Eaton is excited about this announcement for several reasons stated Simon Sparrow, Managing Director of Eaton Lighting Systems.

It better positions the Lighting business to respond to evolving industry and customer needs, it enables Lighting to compete more effectively across its diverse end-markets, and it enhances Eaton's ability to focus investments in its core businesses.

Over the next few months, Eaton will be working to finalize the spin-off and ensure a seamless transition for employees, customers and valued business partners.

In the meantime, however, it's business as usual.

Zero 88 continues to focus on developing the entertainment market bringing dynamic, innovative, affordable and intuitive lighting control products to the fore as it has done for over 45 years.

Customers can contact their current sales representative with any questions related to this announcement or any ongoing business relationships.

## PORTMAN LIGHTS LAUNCHES ALL-LED P1 MINI

Portman Lights, the Polish manufacturer of decorative stage lighting, has released its newest product - **P1 mini LED**.

Reportedly, arranged in the same configuration and housing as the original P1 Retro Lamp, P1 mini LED combines two layers of light sources: a special 1800K linear filament and an RGBW glow that adds colour and enhances the creative possibilities of the new fixture.

Portman Lights' Business Development Manager, **Dominik Zimakowski**, says, "This is a ground-breaking product for us because, for the first time, we have produced a full LED stage lighting fixture whilst

retaining the truly vintage, halogen look. P1 mini LED provides that unique Portman Lights look that is so in demand for television and live performance yet answers the growing demand for LED light sources."

P1 mini LED is also a perfect product for permanent installations because its total power consumption is less than 100W per unit, and it is designed to run off 110V-230V power.

"We anticipated P1 mini LED would generate a lot of interest but were very happy to see our expectations were exceeded by the amount of enquiries we received," says Portman Lights lighting designer, **Łukasz Szejna**.







**V-Series.**



**Y-Series.**



**T-Series.**

The Mobile range of d&b systems fulfills a broad spectrum of application demands, from touring productions and sports events, to live sound, performing arts and speech reinforcement. The loudspeakers and amplifiers are specifically designed to deliver scalability, flexibility and maximum efficiency, with dedicated rigging and transport accessories for easy redeployment from one venue to the next.

d&b  
audiotechnik 

# LIVE SOUND CONSOLES

## Mix Matters

### Allen & Heath dLive S7000

The S7000 is the largest control Surface in the dLive family, with a whopping 216 assignable fader strips. It features 36 faders over 6 layers, dual 12" capacitive touch-screens and the innovative Harmony UI for the fastest workflow in the industry.

#### Main Features include:

- 36 faders
- Fully assignable layout – 216 fader strips
- Harmony UI integrates screen and wrap-around controls
  - Gesture control – pinch, swipe, drag 'n drop
  - Dedicated multi-mode EQ view
  - Configurable widget areas for Scenes, meters, FX and more
  - 3 pages of 6 assignable rotaries per screen
- 26 assignable SoftKeys
- Engineer's Wedge and IEM fader strips
- Comprehensive multipoint metering
- Daylight visibility
- USB stereo recording and playback
- 8 XLR mic/line in, 8 XLR line out
- 2 digital st AES3 in, 3 digital st AES3 out
- Connection hub
  - Dual redundant GigaACE gigabit link to MixRack
  - 1x redundant DX link for I/O expansion
  - 2x I/O Ports – 128 ch 96 kHz each
  - 2x Network ports
  - Wordclock BNC I/O
  - Video output
- Dual redundant, hot swappable power supply

#### Technical Specifications:

- Mic/Line XLR Inputs: Balanced XLR, +48V phantom power
- Mic/Line Preamp: Fully recallable Dynamic Range 110dB
- Input Sensitivity: -60 to +15dBu
- System Signal to Noise: -92dB
- Analogue Gain: +5 to +60dB, 1dB steps
- Frequency Response: 20Hz - 30kHz +0/-0.8dB
- Maximum Input Level: +30dBu (PAD in)

- Headroom: +18dB
- Output Impedance: <75Ω
- Nominal Output: +4dBu = 0dB meter reading
- Maximum Output Level: +22dBu
- Residual Output Noise: -92dBu (muted, 20-20kHz); -90dBu (muted, 20-40kHz)
- Width: 1325 mm
- Depth: 728 mm
- Height: 413 mm
- Weight: 41kg (90lbs)

### Harman Soundcraft Vi3000

Soundcraft Vi3000 features an all-new appearance with a more efficiently designed control surface, 36 faders, 24 mono/stereo busses and a sweeping black screen panel with four Vistronics II touchscreen interfaces with sleek, updated 3D graphics. It offers extensive rear panel connectivity.

#### Main features include:

- BSS DPR901ii Dynamic EQ - This acclaimed industry-standard DEQ is built in as standard with 8 instances available for inserting on any input or output channel.
- Copy/Paste channel bus and FX settings: Dedicated Copy and Paste buttons on the surface allow the settings of any channel, bus or FX section to be copied and pasted, dramatically cutting down the setup time.
- Copy/Paste processing elements: Operators can drill down to copy and paste even single processing elements, and the last paste operation can always be quickly reversed with an UNDO function.
- Advanced events integration: Cues can trigger or be triggered by MIDI or GPIO events, including MIDI timecode. Harman's HiQnet Venue recall function is tightly integrated within the Cue List.
- Automated microphone mixing: STUDER vMIX processing is built-in, with ability to seamlessly process up to two separate groups of 16 inputs, with clear and intuitive metering showing gain reduction.
- All busses to stereo: All busses can be turned to stereo without tying up two busses, providing a massive 24 stereo mix capability.



- Auto-increase of ambient mic levels in monitor mixes between songs: Vi3000 has the facility to externally control the Gate or Ducking processing from a bus in the console.

#### Technical Specifications:

- Frequency Response: 0/-1dB, 20Hz-20kHz
- Sampling Frequency: 48kHz
- AES/EBU Input Sample Rate: 32-108kHz (with SRC enabled)
- Mains Voltage Operating Range: 90-264V, 47-63Hz, auto-ranging
- Mains Power Consumption: 300W
- Height (Console Only): 351mm (13.8")
- Width (Console Only): 1446mm (56.9")
- Depth (Console Only): 803mm (31.6")
- Weight (Console Only): 54kg (119lb)
- Height (with standard shipping carton): 595mm (23.5")
- Width (with standard shipping carton): 1580mm (62.2")
- Depth (with standard shipping carton): 950mm (37.4")
- Weight (with standard shipping carton): 96kg (212lb) T

### Avid Venue S6L

VENUE | S6L has gain unprecedented processing capabilities with over 300 processing channels, unrelenting performance and reliability through its advanced engine design. Mix faster and easier through modern touchscreen workflows. And work with way more plug-ins and Pro Tools track counts than ever before. When you need to present the best mixes possible, S6L delivers unmatched power, clarity, and customization to meet the demands of any gig.

#### Main features include:

- Gain more I/O flexibility: With the latest VENUE software release, you can now use Avid Stage 16 remote I/O boxes in addition to your Stage 64 rack, give more networked I/O distribution flexibility.
- Get better insight into your mix: With the





***PALM Technology** is back with its **Live Consoles Part II** featuring another line-up of some more remarkable desks. The listing is a window to some popular live sound consoles that have ruled the Indian market.*



new Meters view on the Master Touch-screen, users can now get an uninterrupted continuous view of your channel metering across all of your S6L console screens.

- Access key commands faster: The latest VENUE software adds two new fast-access buttons to the Master Touchscreen. With the System button, you can quickly access such system commands as Shutdown, Info, Update, Lock, and Clear System.
- Mix theater productions with ease: Add any of the 96 aux sends to your snapshot Scope. Gain greater efficiency with numerous snapshot advancements.
- Mix faster, the way you want: The latest VENUE software for S6L provides many new control surface and software workflow enhancements to simplify and let you customize your mixing experience.

#### Technical Specifications:

- **Control Surface:** 12-inch daylight-visible touchscreens
- **Faders:** 48 + 2
- **Analog inputs:** 8 XLR mic/line inputs with 48V and signal present LEDs
- **Analog outputs:** 8 XLR outputs with mute and signal present LEDs
- **Digital inputs:** 4 pairs of XLR stereo AES/EBU (8 channels total)
- **Digital outputs:** 4 pairs of XLR stereo AES/EBU (8 channels total)
- **Headphone outputs:** 2 independent 1/4" TRS stereo headphone jacks
- **Height (front, rear):** 3.6, 15.3 inches (91, 388 mm)      3.6, 8 inches (91, 205 mm)
- **Width:** 76.1 inches (1,934 mm)
- **Depth:** 31 inches (787 mm)

### Digico SD12

Compact in size but big on features, the SD12 raises the bar as a multi-application digital console at an exceptionally affordable price point. Not only is the SD12 a true sonic powerhouse, it is the first in the SD-Range to feature an integrated recording interface which makes virtual sound checking a snap.

#### Main features include:

- 72 Input Channels

- 36 Aux / Sub-Group Busses
- LR/LCR Master Buss
- 12 x 8 Full Processing Matrix
- 119 Dynamic Equalizers
- 48/96 kHz Sample Rate
- Control integration for Klang Immersive systems V

#### Technical Specifications:

##### General Specifications

- Faders: 26 x 100mm touch-sensitive, motorised
- Screens: 2 x 15" LCD high – resolution touch screens
- Input Channels: 72
- Sampling rates: 48kHz / 96kHz
- SD12 Dimensions: 1124 mm (w) x 795 mm (d) x 389 mm (h)
- SD12 Weight: 42Kg / 96lbs.(130Kg / 287lbs. with optional flightcase)
- SD12 Flightcase: 1270 mm (w) x 570 mm (d) x 1150 mm (h)
- SD12 Power Requirements : 90V-260V, 50-60Hz, 150VA. (140W)

##### Audio Specification

- Sample rate: 96kHz or 48kHz
- Frequency response: +/- 0.6dB (20Hz – 20kHz)
- THD: <0.05% @ unity gain, 10dB input @ 1kHz
- Channel Separation: Better than 90dB (40Hz – 15kHz)
- Microphone Input: Better than -126dB Equivalent Noise
- Maximum Output Level: +22dBu
- Maximum Input Level: +22dBu: M



### Yamaha CL5 Digital

The Yamaha CL5 digital mixing console represents a new level of refinement in live sound mixing. It offers an evolved experience in accessible mixing, plus sonic purity with sound shaping capabilities that will give the most imaginative engineer unprecedented creative freedom

#### Main Features include:

- Input channels: 72-mono, 8-stereos.

- Mix/Matrix Buses: 24 mixes / 8 matrices (Input to Matrix supported)
- Fader configuration: 16-fader left section, 8-fader Centralogic section, 8-fader right section, 2-fader master section.
- VCM models of the renowned Neve Portico 5033 equalizer and Portico 5043 compressor/limiter developed with Rupert Neve Designs
- Stainless steel stay for iPad support.
- Built-in meter bridge.

#### Technical Specifications:

- Mixing Capacity:
  - **Input Mixing Channels:** 72 mono + 8 stereo
  - **Mix Buses:** 24
  - **Matrices:** 8 (Input to Matrix supported)
- Input Channel Functions
  - **Digital Gain:** Yes (-96dB ~ +24dB)
  - **ATT:** -96dB ~ 0dB
  - **HPF:** 20Hz ~ 600Hz, -6 or -12dB/oct Selectable (CL V1.51 or later)
- Sampling frequency rate:
  - **Internal:** 44.1kHz / 48kHz
  - **External:** 44.1kHz: +4.1667%, +0.1%, -0.1%, -4.0% (±200ppm), 48kHz: +4.1667%, +0.1%, -0.1%, -4.0% (±200ppm)
- **Signal delay:** Less than 2.5ms, OMNI IN to OMNI OUT, Fs=48kHz
- **Total harmonic distortion:** less than 0.05% 20Hz-20kHz@+4dBu into 600Ω, OMNI IN to OMNI OUT, Input Gain = Min.
- **Frequency response:** +0.5, -1.5dB 20Hz-20kHz, refer to +4dBu output @1kHz, OMNI IN to OMNI OUT
- **Dynamic range:** 112dB typ.: DA Converter / 108dB typ.: OMNI IN to OMNI OUT, Input Gain = Min.
- Hum & noise level:
  - **Equivalent input noise:** -128dBu typ., Equivalent Input Noise, Input Gain=Max.
  - **Residual output noise:** -88dBu, Residual output noise, ST master off
- **Crosstalk:** -100dB\*1, adjacent OMNI IN/OMNI OUT channels, Input Gain = Min.
- **Power consumption:** 170W: Internal Power Supply / 200W: Simultaneous use of Internal PSU and External PW800W
- **Dimensions (W\*H\*D):** 1053mm (41 1/2in)\* 299mm (11 3/4in)\* 667mm (26 1/4in)
- **Net weight:** 36kg (79.4lb)



# The Bright Spark

## CREATIVITY IS A BUSINESS

Viraf Pocha

What excites you about your job? What is your job? - Technician? Manager? Creative Guy? Client Servicing? Other?

Do you have an answer? To the First question - What excites you about your job?

All of us have had a pretty good season. Everything lined up for the Event & Entertainment businesses this year. Hit Movies, lots of great new music, Concert Tours, large scale weddings, shows and corporate events - everybody seems to have enjoyed a juicy slice of the pie.

What excites you going ahead? If you're successful in this business, it's pretty much a sad and common fact that our families don't get to see us as much as they'd like. So after a good year, is your excitement diverted away from your job - OR are you hungrily waiting for next season to see how far you can take things?

Now's a good time to think things through. What's the mindset you bringing to PALM?

Buying updated versions of what you already have? Looking for new stuff to play with? Reconnecting with distant buddies?

As PALM goes bigger every year - it throws up lots of opportunities to do more of what you did last year. Trouble is - if you not focussed and you have FOMO (Fear of Missing Out) you could be so swamped that instead of exhilaration you could just end up confused and exhausted.

Wouldn't want to wish that on you, buddy! So here's a short list of ideas that I hope helps you Get 'MOFIT' (most out of it). Which is why I had asked you - What excites you about your job?

Is it the actual doing of the work? Yeah - we're a dumb breed - some of us actually enjoy the late nights and stale pizza - because after all that, we get to see the best show we can think of in our minds.

Is it the perks / benefits that come with the job? Hanging with the cool guys. Gotta be up there with the latest or else the next guy will know more than me!

Is being a team leader and bring in a project that everybody

associated is proud of - and we all made money!

Or - In these troubled times - You are just glad you still have a job and life is trundling along.

My simple and humble advise to each and every one of you is this - GET CREATIVE.

To all my 'Creative' Brothers - aren't you just a little tired of the sameness of all the shows? In my opinion most creativity is diverted into - what can I find on the net to meet my clients brief? How can I reproduce a million dollar idea in the cheapest possible cost?

There's little shame in this approach - all of us have done it at some time or another. Trouble is the net is vast and all reaching. Even kids in tiny villages are watching movies and have access on how things are done. It's no coincidence that the latest crop of stars from both the sports and entertainment world hail from smaller towns. Could it be that the disadvantage of 'Not much to do' is converted into the advantage of 'Have Lots of time to Practice!' If that's true - then they are at your door buddy - how are you going to deal with it?

Push your creativity by being the confluence of art forms that have not been explored before.

Take advantage of the big city and bring together more and more arts and crafts and create something that is visually unique.

India has had a glorious design past. So many many influences. I've had great fun exploring a huge variety of them. Then I got bored. Bored of updating old ideas. I went looking for fresh stuff. I knew enough of the past to skirt all the obvious traps and create something Indian for today.

Modern Indian painting is pushing in that direction. New forms, shapes and colour schemes are jumping up. I urge you to explore them.

Aren't you just a little bit tired of having computers move lights and blink all over the place. I came across this great line - 'The machines are learning - Are You?' It terrified me, and got me to move my tired old bones into fresh directions. Machines are great at processing large volumes of work predictably and consistently. So I looking for avenues where the exact opposite tells a great story.

I sincerely hope that the old principal of 'Build something great -

the people and the money will come' holds true cause when you in the middle of this, looking for money and good partners is almost impossible. So stand out and hope they find you.

Creativity becomes the core business. The backbone of your existence. To be successful in the future you will have to build a business around it the old fashioned way - but with modern tools.

Land, Labour, Capital and Management - the factors of production remain the same. But today we look for them and attract them differently

If you are a Business Guy - I hope this sparks some interest. I firmly believe that this is where the money will be, going ahead.

Of course there are many avenues for you to explore at PALM. Lots of manufacturers and traders you are going to make some amazing deals with. Good Luck. I can only urge you to look at equipment that encourages creativity. Are you scratching your head? It's an odd idea. How can equipment encourage creativity? Fair Question.

For that you need to understand the mindset of the guy who designed the equipment. Take some time. Each piece of equipment is designed for a certain specific purpose. Sometimes it is a quick fix or a nagging update that fixes a common glitch that users experience and complaint. And there is tremendous value there.

But every once in a while you will come across a designer that asks himself or his team - 'How do we make it better?'

There are two typical ways a team responds. One - it throws in every feature imaginable, sometimes after lots of market feedback and many arguments centred around what will the market pay for.

If the team gets it right - you have the beginnings of a good product. It will begin well and last until a new set of requirements jump up in the market. Then it will be phased out or upgraded into a sexier box.

Then you have the other rarer team who asks - 'What happens if....' Should they ask themselves the right question which triggers their flight into the fresh direction - you will find a quiet launch of something nobody actually knows what to do with.

Then slowly as some aficionados

get trapped into the net - a user group will form around the product and much traffic will be noticed on their user forums. Suddenly there is a Eureka moment when either the market or the designers hit on the missing piece that bridges into the mainstream market.

Early users will display the new skills and suddenly some fresh and unique looks will form. People will try and replicate that with their own equipment. That is the acid test. Can they? If they can - all the effort is wasted.

But if their existing equipment just can't get there - or if it takes ages to set up the desired effect - the mass market will pounce onto the product and within a short time - you have a winner.

It takes a knack and some courage to identify and invest in this - but if it pays off - entire careers can be created by getting just one great step right. As you go about your regular business - at least keep an eye or a ear open for one such. It will be worth it.

And Now onto the third guy. All I have to remind you brother is 'This is a blood and guts business. It's about passion and persistence. Gobs of it to make you ignore the inconvenience.'

So choose - Get Technical and then push your creativity. Or step away from the bits and bobs and focus in fashioning a business where things change every day. Tough but exciting. If you simply floating along - the younger guys are faster swimmers and will overtake you really soon.

Good Luck Guys. You got a PALM in your hands.

*(The views expressed by the author are his own personal comments and the magazine does not subscribe to them).*





# d&b Soundscape - and everything is a concert hall.

Enveloped by sound. Exhilarating acoustics, inside and outside. Emulated with the reverberation signatures of exemplary venues. Sound coherent with the program and setting. Transforming spaces to bring completely new listening experiences.

d&b Soundscape is a revolutionary audio system processor, an object positioning tool, a reverberation system, akin to a musical instrument – a tool to provide the appropriate stage for a culture - even under the open sky.



[dbsoundscape.com](http://dbsoundscape.com)



✉ [livesound@ansata.net](mailto:livesound@ansata.net)  
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# PIONEER UNVEILS DDJ-800 CONTROLLER, DESIGNED FOR REKORDBOX DJ

Pioneer has unveiled the DDJ-800, a new compact 2-channel DJ performance controller for dedicated use with our professional performance

you own a license key for one of the rekordbox Plus Packs (rekordbox dj, video, or dvs), you can upgrade to the new version of the Plus Pack for



application, rekordbox dj. The DDJ-800 is designed to help you get the most from the new features coming to the software with the release of rekordbox™ ver. 5.5.0 today.

Inheriting the layout design of our DJ controller, the DDJ-1000 – which has earned a strong reputation with professional DJs who perform at weddings, parties, and events outside the club environment – the DDJ-800 packs a host of performance features into a lighter body.

The DDJ-800 is the first piece of hardware compatible with the brand-new Feedback Reducer feature in rekordbox dj, which automatically lessens the “howling” sound of microphone feedback. The DJ controller also features Color On Jog Display, giving you all the information you need for professional performances right in the center of each jog wheel.

Download rekordbox ver. 5.5.0 for free from <https://rekordbox.com>. If

free.

### Key Features of the DDJ-800

#### Compact, Lighter, Portable Body

Take the DDJ-800 wherever you want thanks to its portable design, which is smaller than the DDJ-1000 by 22% in volume and 1.3 kg in weight.

#### Colour on Jog display for quick reference and accurate performances

The DDJ-800 is our first 2-channel controller to feature high-definition LCD screens showing information such as playback time, BPM, and waveforms in the center of each jog wheel. Cue Scope indicates the distance in bars from the current playback position to Hot Cue points and Loop points, enabling you to mix quickly and more accurately. You can choose to display full artwork on the displays, helping you instantly identify the track loaded on a deck by simply looking at the jog wheel.

#### Feedback Reducer – The first feature on a DJ Controller to lessen

#### Microphone “Howling”

Pass the mic around with confidence. The DDJ-800 is the first controller that supports the new Feedback Reducer feature in rekordbox dj, which instantly detects the “howling” frequency of feedback and brings it down. Plus, two independent mic inputs give you greater flexibility when you’re juggling DJs, MCs, and guest speakers.

#### Club-Style layout and features

Perform with the DDJ-800 as if you’re using our flagship setup. All the buttons, knobs, and faders on the controller are arranged and used in the same way as those on our club-standard CDJ-2000NXS2 and DJM-900NXS2 setup.

Use Feeling Adjust to set the resistance on the jog wheels to your preferred weight for scratching and spice up your sets with the popular Sound Color FX and Beat FX from our DJM mixer series. You can instantly reference BPM and the name of the selected FX without looking at your PC/Mac thanks to the dedicated Beat FX display, making it easy to use the FX whenever inspiration strikes.

#### Audio Mixer Feature – Control External Input Volume

You can use the DDJ-800 as a mixer to control the volume of audio input from an external device – even when you’re using it on its own – by adjusting the trims, channel faders and EQs. And, when the controller is connected to rekordbox dj, you can use Sound Color FX and Beat FX too.

#### Other Features

- Performance Pads – use the 16 tactile illuminated rubber pads (8 per deck) to trigger Hot Cues,

Pad FX, Beat Jump, Sampler, Keyboard mode, and more

- Advanced Super Fast Search – quickly reach any playback position
- Page – switch between Hot Cues A-H and I-P
- Dedicated buttons for Key Shift and Key Sync – take direct control of rekordbox dj key-related features
- rekordbox dvs ready4 – connect multi players or turntables to control rekordbox dj

#### Key features of Rekordbox Ver 5.5.0

##### Plug and Play

Simply connect the DDJ-800 to your PC/Mac to enable rekordbox dj. You don’t need to enter a license key to use the software with the controller.

- 1 In the DJ controller market with the microphone howling feature (according to the research conducted by Pioneer DJ Corporation, April 8, 2019).
- 2 To use Feedback Reducer, update rekordbox dj to the latest version (ver. 5.5.0).
- 3 Beat FX, Sound Color FX, and selected other rekordbox features are not available when rekordbox dj is not connected.
- 4 Requires the rekordbox dvs Plus Pack license key and dedicated control vinyl (both available separately).
- 5 To use rekordbox dj on your computer without connecting the DDJ-800, activate the rekordbox dj license (a license key card is included in the box).

## PATANKAR SOUND PRO INVESTS IN DYNATECH

Patankar Sound Pro have been bringing the music scene in Thane alive and making people dance to their tunes on the dance floor. Known for delivering high quality event services for a variety of gigs, they are one of the most sought-after DJ companies in the private function scene in Thane. A key aspect of their unmitigated success stems from the passion for top quality sound, owing to the DDJ-850 media player and DDJ-3 tabletop DJ mixer.

Sachin, owner of Patankar Sound



comments, “Whether it’s Bollywood, commercial or any other type of music, nothing impacts

your sound more than the choice of player/controllers and mixers. My team including myself love playing on the DynaDJ DDJ-850 media player paired with the DDJ-3 DJ mixer – a combination that allows for smooth and flawless music playback, while delivering good processing and high performance in a simple package.”



# 11 QUESTIONS WITH **Michele Noselli**

***Co-owner and Board Member, Director of Communications - Outline***

***Founded by Guido Noselli in 1973, Outline - Italian manufacturer of high-end Loudspeaker Systems for the Concert and Installation industry, continues to be a privately-owned company. Outline products are still 100% manufactured in Italy and sold via an international network of over 65 distributors. As Outline approaches 50 years in this business, PT caught up with **Michele Noselli**, Co-owner and Director of Communications at Outline to talk about the company philosophy, R&D process, products and more.***

## **Since its inception, what has been Outline's core management and production philosophy?**

A lot of people probably don't know that Outline was launched as a manufacturer of particularly ambitious electronic products. They therefore had to be really unusual. That was back in the early seventies. High-performance loudspeaker systems were introduced several years later and are now our core business. In fact, founder Guido Noselli intended the name "Outline" to mean precisely the conception, design and construction of "special" equipment. We're just a few years from the 50th anniversary of our foundation and it seems to us that the original mission has always been respected!

## **What are the advantages of being in a family owned business?**

That's an interesting question. More "experience" would be required to answer in detail: nobody's ever asked this before! One advantage consists in the very fact of feeling "one of the family", even at work. As well as my brother Stefano, I'd also include Giorgio (Biffi), our father's historical partner. This doesn't mean that it's always been plain sailing, but, as in the "best of families", we try to exploit our differences – which there are, and fortunately turn them into even better results for all concerned.

## **An important learning that has been passed on to you by your father Guido Noselli**

As happens with whoever forges his own



"creature", Guido was the 'mind' and 'soul' of Outline. From a human point of view, he represented an example of day-to-day passion, devotion and sacrifice; perseverance and tenacity in the difficult moments, when, in spite of the effort, results weren't forthcoming. How could we say he was wrong?

## **Are there any concrete changes in how the company is run today, after Mr. Noselli passed away?**

Making decisions now requires a more "collective" process, whereas Guido Noselli decided entirely on his own. Nowadays, several briefings between the management team and the R&D department are required to develop a new product or technology. The advantage is that the final decision passes through several "souls" with very different sensibility. Here again, this isn't necessarily always an advantage (it takes longer), but at the moment it seems the best possible system.

## **Tell us about the R&D process at Outline and how much would you say Outline employs "state-of-the art design" in its products?**

Every single Outline device is an expression of strictly Italian-made products, as well as our desire to study and apply the most avant-garde and, wherever possible, 'stylish' technical solutions. All this while always remaining true to our original mission.

## **Would you say that Superfly is a new improved version of Butterfly or GTO?**

According to our R&D intent, Superfly represents the evolution of the state of the

art. Perhaps this seems rather high-flown, but describing it as merely the evolution of the Butterfly is very reductive: it's not just a case of 'Butterfly 2 – the Revenge'. Superfly is the response to the current need to go beyond the state of the art with a product featuring a considerable series of 'extras'. More 'punch' (real LF extension below 50 Hz), more power, more lightness (compared with the objectively phenomenal performance), more saving (considering overall economy, i.e. with Superfly you travel with less weight and less bulk, but can do big events, as has already been demonstrated). There's a bigger return on investment...and very fast!

## **How is Newton superior or different from other multi-source audio processors? And who are your main target customers for Newton?**

Newton is the 'multi-tool' of audio processors. We often use this slogan to facilitate the understanding of this device and its characteristics (even for us non-engineers!). Its main merit is therefore that of being able to meet multiple requirements, even in contexts full of unexpected events, even the trickiest ones.

Backed by the support of several authoritative FOH and System Engineers who pooled their experiences and difficulties, Newton – our R&D team tells me - tried to respond to all the situations involving possible hitches: having to connect a console at the last minute, having to provide a clock for a video control set-up at very short notice, correcting equalization or replacing a digital console in an emergency.

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All this was achieved without foregoing the fundamental requirements of reliability and quality, both top grade, as has been demonstrated technically in the field and with measurement instruments.

The various audio interfaces are always available simultaneously and don't require intermediate procedure and on-site pre-assembly or modification work which can sometimes be demanding from a logistic point of view.

All the clocks are always available and the backup strategies ensure worry-free signal availability.

The software required many hours of development work to ensure operating speed and reliability. In spite of the device's complexity and the multitude of signals to be handled, feedback from operators confirms it is an easy and fast device to use. The learning curve is so rapid that sometimes no explanations are necessary.

The measurements carried out by extremely authoritative third parties confirmed the device's quality and, to date, there is at present nothing on the market that compares with the resolution of the raised cosine filters (check out the dedicated Web site: [newton.outline.it](http://newton.outline.it)).

The fact that it is currently used at festivals with multi-consoles set-ups (e.g. Coachella in California) is proof of the product's reliability and the fact that it is recognized all round as a bridge between digital consoles and loudspeaker systems.

#### **Do you feel that Newton is a major milestone in the history of Outline, just like the Butterfly line array?**

It definitely is. As was the case with Butterfly, conceived in the early 2000s (it had several patents) and then given its 'baptism of fire' by legendary rental company Britannia Row Productions, Newton now sets new rules in the signal processing management world. For some time it has already had various top-grade users in the sector worldwide for some time (United States, UK, Europe and Australasia). Two international patent applications have been filed for Newton and on its exclusive on-board zero-latency WFIR (Warped Finite Impulse Response) EQ filters.

#### **What's next after Newton? I believe Outline showcased a raft of new products at ISE and PL+S 2019.**

The reply to this question implies in-depth technical info, so comes entirely from our R&D department.

Newton is, above all a technological platform, which features the FPGA (Field Programmable Gate Array) as the core element for everything regarding real-time activity and Linux as far as everything regarding its interfacing with the outside world is concerned. It is therefore part of its very nature the fact that it is ready for future developments, in all directions (and I'd like to stress 'all directions'). The market has already shown how FPGA has a greater margin for development than DSP, above all because it is able to integrate various functions that normally require dedicated physical components (and their

obsolescence therefore has to be taken into consideration).

At the same time, Linux is constantly developing and expanding (it is increasing used on the IoT market), to meet various control necessities.

The simultaneous presence of several interfaces (analogue, digital and distributed audio) has also enabled to develop the necessary know-how to handle each of them and thus potentially think of a series of 'baby' products compared to Newton. Newton has earned itself an exclusive role in audio management at festivals, when there are multi-console set-ups, but its sophisticated management of clocks and backup strategy is also ideally suited to fixed installation contexts, where reliability and quality are essential requisites.

The choice of control software development is also of great importance. The choice didn't fall on frameworks that are all the rage in the Web application world, but with greater awareness (In 2008, Outline's 'iMode' proprietary technology already had an integrated web application for control, so it was possible to monitor this technology's evolution through time), knowledge was acquired for using the native development environments that parent companies release. This means ensuring the product's life cycle, not only for a couple of years (the average life of some Web technology, due to the purchase of company takeovers and political strategies), but for a much longer period of time.

So Outline Dashboard, which is the control software of the system and not only of Newton, was developed with Xcode, the native instrument provided by Apple, which ensures performance unobtainable with other instruments and a guarantee regarding future developments.

In short, Newton is the "welcome" mat on a doorway, beyond which, as is the tradition with Outline, there's a whole world still to be discovered.

**In India, in which segment (fixed install or rental) have you seen**

#### **most potential for Outline products?**

After discussions with our distributor, Mr. Gaurav Malvai, Global Pro-Audio Management's Director, and considering the vast range of products in the Outline catalogue, we believe both sectors offer great potential on the Indian market.

#### **Do you think that India is a price sensitive market? And what are your short and long-term goals for the India market?**

According to our information, India has become a very price-sensitive market. We are working on a long-term goal by maintaining the brand's premium image and positioning it towards the right target audience. On a short-term basis we've just introduced the brand-new Ki-Series, an application-flexible compact loudspeaker concept designed for a broad range of installed applications. The price:quality ratio is excellent, despite the fact that the products are manufactured entirely in Italy. Both Ki-Series' models (Ki10 and Ki12) also feature another Outline first, a rotatable waveguide with a brand-new design. Many comparable loudspeakers offer this facility but Outline's Ki-series are the first to allow the installer to quickly and easily rotate the entire horn and HF section without any disassembly of the loudspeaker.

### **FBT debuts flagship touring sound solution**



#### **Myra 214L**

**BI-AMPED LINE ARRAY - 1600W + 640W - 147 DB SPL**



- \* Bi-amplified 3-way line array
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#### **Myra 218S**

**REFLEX SUBWOOFER - 3000W - 143 DB SPL**

- \* Dual 18" reflex-loaded subwoofer
- \* 2 x 457mm (18") custom woofers with 100mm (4") voice coils
- \* Frequency response down to 30Hz

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in.yamaha.com

