

Roger Drego on Creating Fail-Proof Sound for Mega Live Events



In a session titled 'Performance Guarantee Of Mega Scale Live Sound Projects', Roger Drego, Managing Director, Electrocraft, took to the stage at PALM Conference 2022 to share invaluable challenges and insights with regards to guaranteeing fail-proof sound reinforcement during showtime. The 45-minute information-laden session, brought to you by PALM Expo 2022, paved the way for rental companies to understand the dynamics of delivering quality sound for events catering to lakhs of people, covering thousands of square meters, and requiring immense planning and expertise. Read on for the highlights of the talk.

With his engineering ingenuity and technical acumen, **Roger Drego** is a man with a trained eye for recognizing the best-in-class sound equipment. When **Electrocraft** first purchased the Line Array in 1999, the technology wasn't a popular choice for big event management companies. Drego remembers, "A lot of companies still did not realize that line arrays were here to stay. They nicknamed the line array, a banana array. And the Americans said, 'a banana here, a banana there'. But nobody realized that the line array is here to stay."

What really helped Roger Drego in cementing Electrocraft's reputation as one of the leading live sound solutions company was his foresight. Talking about how Electrocraft stood out in a sea of competition in the market, and how the company was chosen time and

again to do sound for major events and rallies in Delhi, Drego says, "We became popular because other people failed. And why the other people failed, is because a lot of companies did not keep up with technology. For instance, the Rajiv Gandhi Rally in Bremen stadium for the Congress Centenary Celebrations was managed by Chicago Radio, which was an established company for many years. Their system failed. Amitabh Bachchan recommended my

name to Rajiv Gandhi. 20 police vans came that night to my warehouse. That's how I first got in touch with Delhi and with the Prime Minister."

He continues, "From then on, we were called to most of the major happenings in Delhi. Be it the Russian President coming to Delhi, the Sri Lankan President coming to Delhi, the Apna Utsav Festival, you name it. One year, we also provided sound solutions on Republic Day with cordless mics, when cordless mics were

very, very rare to find."

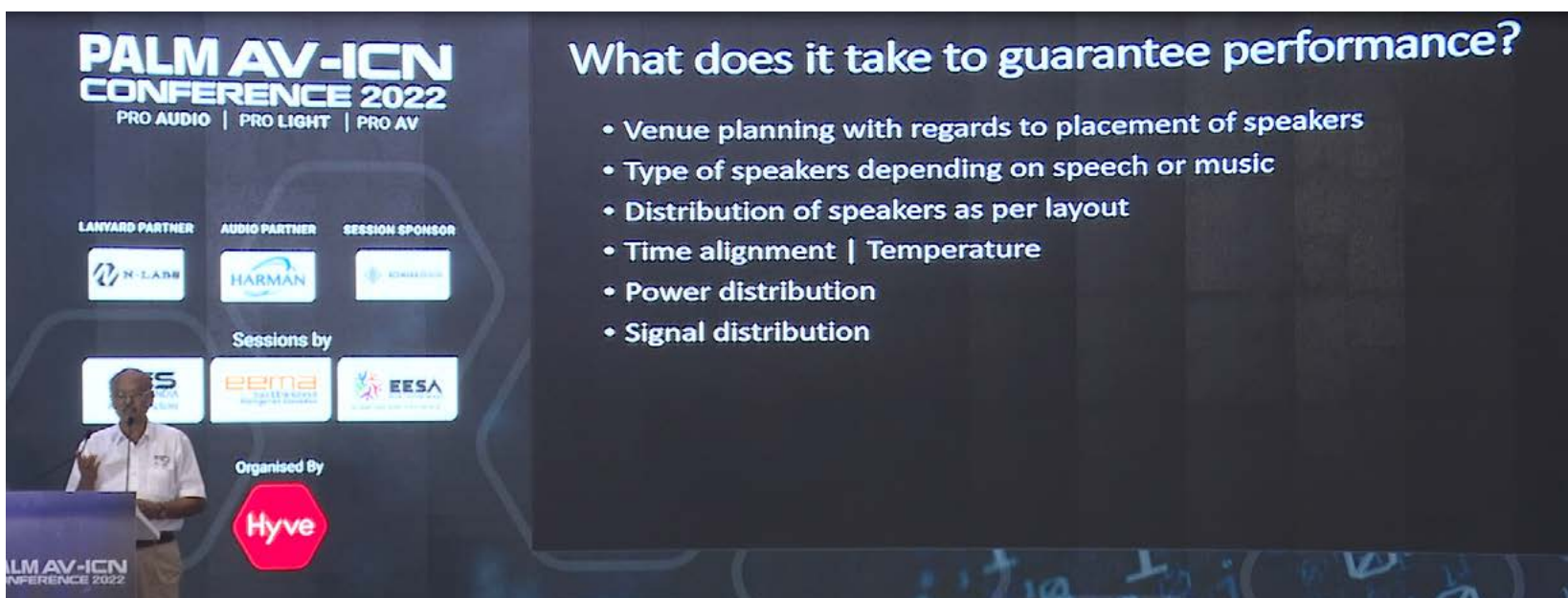
Scaling New Heights in Sound Reinforcement

This was just the beginning. With the arrival of the line array, for the first time with analog signal and a wireless network, Electrocraft successfully executed Benny Hinn's major event in BKC, Mumbai, where the stage measured 800 metres by 300 metres and the crowd amounted to 600,000 people.

In 2005, Electrocraft repeated its flawless live sound execution at Jakkur Aerodrome in Bengaluru, where the stage spread at one kilometre by one kilometre. "It took me one month just to do the mains cabling and the signal cabling," Drego shares.

"The next big event that we had in 2016 was for Sri Sri Ravi Shankar which

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Roger Drego explaining the recipe for success for delivering effortless sound solutions for large-scale live events

was done in Delhi. Now, this was a major challenge, because I think this was one of the biggest stages that India has ever seen - 1200 feet long and 50 feet high. If you stood at one end of the stage, you could not see the other end of the stage. 14 trucks of equipment were used and 100 small liner cabinets were made just for this event. On stage, we had 8000-9000 musicians."

However, it wasn't all smooth sailing for Drego and Electrocraft. The ace sound technician recalls, "It started raining before the show. And as the show started, it came down and the LEDs stopped working, the lights stopped working, but the sound went on. It rained for eight minutes, non-stop. Cordless mics got wet, some got damaged, but nothing failed."

Delivering Fail-Proof Sound Solutions – Venue Planning

But what is the recipe for success with regards to delivering effortless sound solutions for large-scale live events? Drego reveals, "We should first look at the venue planning. The venue planning is how big the ground is. Into how many blocks are you going to break up the ground? And if it's a speech, or if it's music, what kind of equipment are you going to use? If it's speech, obviously, it will be a smart, smaller box. But if there's music involved, then you will use line arrays in the front and double 15-inches and a horn to carry on the equipment at the back or double 9-inch liner array to continue the sound going downward down the line. The type of speakers will depend on the event that you're doing. A musical event has to have low end and some kind of quality. Think a few K2s, maybe two or four arrays in the front, and a delay of that. And then you start with delay of Wi Fi, 8-inch line arrays."

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Creating Flawless Sound with Balanced Speaker Distribution

How the speakers are distributed around the venue also plays a crucial role in ensuring fail-proof sound solutions. "One line array can cover only a certain area. If you take a big land area you can cover maybe 250 feet to 300 feet maximum down the line, the coverage of the width will be another 150 feet to 200 feet as you go further away from the box. So it's important that when you're planning your positioning of your speakers, you position the speaker in such a way that the next delay stack comes and takes over from the first line array that you've installed. You will go on adding on your delay stacks in that manner, so that the sound reaches right till the end." explains Drego.

“When you’re doing a big event, you must have a backup. Power can fail any time. If you don’t have proper power, you lose your mixer, you lose a lot of information. If that information is not stored, and you start rebooting your mixer again, you’ve lost time, and you’re going to be in a big problem.”

Ensuring Zero-Error Time Correction with Time Alignment

Time alignment is another important factor, and Roger Drego stresses on the significance on performing a fine tune before the event for the error-free time correction, He says, "In the morning, when it's cold and it's humid, sound travels at a different speed. And when it's hot in the evening, you will find the sound is also traveling at a different speed. So please be aware when you're doing a big event, the best way of time aligning a system is to physically hear the system and do your final correction."

Taking Care of Power Distribution at A Mega Event

Roger Drego also advises to not take power distribution lightly. He says, "To make sure your system works, your

amplifiers must be driven properly. To make sure your amplifiers are driven properly, you need power distribution to be proper. If the power distribution generator is at one end and the whole ground is a one kilometre long, you're not going to run mains from one side and start routing the main down the line, you have to bring your main supply to the centre. From the centre of the heavy-duty cable, you will go left and right. That's the best way of doing your mains distribution."

A successful end-to-end sound solution cannot be executed unless there is backup, says Drego. He adds, "I think when you're doing a big event, you must have a backup. Power can fail any time. If you don't have proper power, you lose your mixer, you lose a lot of information. If that information is not stored, and you start rebooting your mixer again, you've lost time, and you're going to be in a big problem."

Learning The Essentials of Crew Management

Crew management, according to Drego, is of equal essence when it comes to ensuring uninterrupted sound at live events. He concludes, "You don't want to send the speakers in the first truck. Your first truck that will reach the ground will obviously be cabling, because you're going to start the event with cabling in the ground. Then your next trucks should come with the speakers, so your speakers can be flown. Lastly, the trucks with the mixers and all the processing gear arrive because this part of execution comes at a much later stage."

To put it briefly, the talk at PALM Expo 2022 by Roger Drego was filled with industry insight, technical know-how and an underlined exploration of the history of Electrocraft in the wider world of sound solutions in India, and in the end, it was an occasion that amassed appreciation and applause in equal measure.