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AV TODAY

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Bridging the Gap

How AV-enabled Experience Centers bring immersive learning to higher education

Insightful Conversations

Mustafa Rampurawal
CEO – SISPL

Hemal Bhatt
Founder – N-Labs

Sunil Subramanian
SVP – Business Dev, EDC

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Founder's Note

K. David Paul Sudhakar
Founder and CEO, AV Today

Dear Readers,

India's education landscape is transforming at an unprecedented pace. With the Indian EdTech market currently valued at approximately USD 7.5 billion and projected to reach nearly USD 30 billion by 2030-31, the sector is experiencing remarkable growth. As the world's second-largest e-learning market, India is creating new opportunities for technology providers, educators, and solution integrators alike.

Recognizing this momentum, we have dedicated this edition of AV Today to exploring the technologies, trends, and innovations shaping the future of learning. More importantly, we examine how the AV industry can play a pivotal role in supporting and accelerating this growth.

In this issue, we take a deep dive into the evolution of smart classrooms, evaluate the impact of Interactive Flat Panel Displays (IFPDs) in educational institutions, and explore the emerging concept of Phygital learning environments that seamlessly blend physical and digital experiences. We also present an insightful feature on how experience centers in higher education are helping bridge the gap between traditional classroom learning and real-world industry expectations.

Our leadership spotlight features an exclusive conversation with Mustafa Rampurwala, who recently assumed the role of CEO at SISPL. Drawing on his extensive industry experience, he shares his vision for the future of the AV sector and the opportunities ahead.

Continuing our focus on innovation, our latest podcast features Hemal Bhatt, Founder of N-Labs, who discusses how Indian technology brands are expanding their global presence and competing on the world stage.

This edition also includes an engaging case study of the mini auditorium at Shri Ram Universal School, highlighting the creative thinking and strategic vision behind its design and implementation. For AV consultants and system integrators looking to scale their businesses, we have included a practical guide to marketing and business development that addresses key challenges that often limit growth in our industry.

Additionally, we showcase a selection of innovative products that are enhancing educational experiences and transforming how students learn. As always, we bring you a collection of noteworthy AV installations from across India, offering inspiration and valuable insights from real-world deployments.

We hope this edition offers fresh perspectives, practical knowledge, and ideas to help you navigate the evolving AV landscape. As the boundaries among technology, education, and experience continue to converge, opportunities for our industry have never been greater.

K. David Paul Sudhakar

Founder and CEO

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Scaling with discipline and purpose

For more than twenty years, the Pro AV and IT sectors have undergone rapid evolution, transitioning from specialized installation industries to essential components of corporate real estate and digital strategy. Currently, this transformation necessitates leaders capable of bridging the gap between technical complexity and overarching business value. Following his recent appointment as CEO of Solutions India Systems Pvt Ltd (SISPL) and being awarded an Honorary Doctorate in Innovation and Technology, Dr. Mustafa Rampurawala positions himself at the forefront of this industry convergence. In an exclusive feature for AV Today, Dr. Mustafa articulates his vision for scaling SISPL through operational discipline, addressing the realities of enterprise AI, expanding into high-growth markets, and developing a future-ready workforce.

Technology is no longer about devices and systems; it is about enabling people, transforming experiences, and delivering measurable business outcomes. As we look to the future, my focus remains on innovation, execution excellence, and developing the next generation of industry leaders. The recent Honorary Doctorate is both an honor and a responsibility, inspiring me to continue contributing to the growth of the AV industry and the professionals who drive it.

Dr. Mustafa Rampurawala, CEO, SISPL

Moving from strategy to execution

Steering a legacy systems integrator through a period of rapid growth necessitates a fundamental shift from strategic planning to operational execution. The appointment of Dr. Mustafa signifies a transition from overseeing project implementation to guiding the company's comprehensive strategic vision. This new directive is underpinned by a clear operational philosophy: sustainable growth is rooted in execution excellence rather than solely in ambitious planning.

To effectively scale SISPL in the upcoming years, Dr. Mustafa has concentrated on three core pillars: enhancing operational efficiency through strengthened project governance and investments in digital tools to uphold the quality of the SISPL brand during expansion; fostering customer-centric innovation by coordinating sales, engineering, and customer success teams to ensure solutions align with client business objectives; and promoting talent development to cultivate a culture of continuous professional growth and interdisciplinary expertise.

"Ultimately, our aim is not merely to expand," explains Dr. Mustafa, "but to become more agile, innovative, and valuable to our clients." Reflecting on his recent academic accolade, he remarks that the Doctorate acknowledges the broader influence of technology integration and professional leadership, thereby reinforcing his longstanding commitment to establishing new industry standards.

Blueprint for targeting high-growth markets in Hyderabad

A significant component of SISPL's scaling strategy involves targeted geographic expansion into high-growth Indian business hubs, with Hyderabad identified as a critical priority. The city has swiftly transformed into one of India's most dynamic technology and enterprise centers, attracting multinational corporations, pharmaceutical giants, global capability centers (GCCs), and technology firms.

According to Dr. Mustafa, Hyderabad's enterprise landscape is marked by an accelerated adoption of digital transformation. Modern organizations in the region no longer perceive AV solutions merely as utility communication tools; instead, they regard them as strategic investments in workplace experiences, employee engagement, and overall corporate productivity.

Dr. Mustafa Rampurawala
CEO Solutions India Systems

SISPL's strategic plan for capturing this competitive market hinges on establishing a strong local presence supported by highly skilled technical personnel, comprehensive customer engagement, and prompt service delivery. By leveraging the company's extensive portfolio in designing intelligent workplaces, command-and-control centers, advanced collaboration environments, and immersive experiences, the expansion aims to achieve more than merely increasing market share. The overarching vision is to contribute directly to the local industry by developing future-ready workplaces that serve as benchmarks within the realm of corporate real estate.

An AI workplace reality check

As organizations worldwide rush to implement Artificial Intelligence, distinguishing practical operational value from marketing hype remains a significant challenge for corporate decision-makers. Addressing themes central to his panel at InfoComm Asia, Dr. Mustafa offers a practical systems-integration perspective on where AI genuinely delivers measurable ROI versus where it remains speculative.

Where AI works

AI is delivering tangible outcomes in the enterprise

landscape through areas such as intelligent meeting room automation, workplace analytics for AV/IT hardware, and enhancements like real-time speech transcription, multilingual collaboration tools, and automated content summarization.

Where AI fails

Conversely, the primary shortfall occurs when enterprises expect AI alone to resolve deeper organizational, structural, or cultural challenges. Technology can optimize existing workflows, but it cannot substitute for clear business objectives, structured employee adoption frameworks, or organizational discipline.

As a systems integrator, SISPL's responsibility is to identify use cases where AI resolves authentic business hurdles rather than deploying tools solely because they are trending. Navigating this shift requires a commitment to customer education, ensuring that clients deploy automated technologies with clarity, realism, and a focus on verifiable outcomes.

The evolution of the experience center

The methodology underlying client consultation has experienced a significant paradigm shift. In 2008, SISPL acknowledged that enterprise clients required hands-on interaction, tactile engagement, and experiential familiarity with complex systems prior to committing capital, which led to the establishment of their inaugural state-of-the-art experience centers.

Currently, the concept of the "Experience Center" has transformed from a mere product demonstration facility into a comprehensive business transformation environment. Clients no longer visit solely to assess individual hardware components or standalone devices. Instead, they seek to engage with complete integrated workflows, hybrid collaboration models, and cohesive employee experiences.

Contemporary experience spaces must effectively showcase hybrid collaboration configurations, immersive environment designs, workflows enabled by artificial intelligence, smart building integrations, and workplace analytics platforms. These environments serve as educational venues, assisting corporate leaders in visualizing precisely how technology can enhance communication, cross-functional learning, and executive decision-making when implemented within real-world contexts.

Bridging the convergence of IT and Pro AV

The modern enterprise ecosystem requires an interdisciplinary approach. Unified Communications (UC) platforms and corporate IT networks now integrate with traditional Pro AV infrastructure, making systems networked, software-driven, cloud-connected, and data-dependent. Dr. Mustafa's twenty-year dual background in the IT and AV sectors offers a unique perspective on managing large-scale integrations. Rather than viewing AV, IT, security, networking, and collaboration as separate silos, he considers them interconnected parts of a unified digital ecosystem. This cross-disciplinary approach enables integration teams to engage more effectively with stakeholders such as CIOs, IT directors, facility managers, and workplace strategists. The outcome is scalable, secure, and manageable solutions, future-proofed against changing technologies.

Cultivating a future-ready workforce

In a highly specialized and niche market such as Pro AV, the competition for talent acquisition and retention remains exceptionally intense. Dr. Mustafa's fundamental leadership philosophy is anchored in a clear principle: prioritize investing in people prior to investing in technology.

SISPL Technical Workforce Development Model: [Continuous Certifications] + [Cross-Functional Exposure] [Industry Mentorship] [Culture of True Ownership]

To ensure that technical teams are prepared for the future as the industry advances toward automated systems, immersive environments, cloud platforms, and cybersecurity integration, SISPL advocates a continuous learning model. Engineers and developers are trained to comprehend not only product specifications but also the broader business challenges faced by clients and emerging macroeconomic trends.

By integrating technical education with a culture of genuine operational ownership, team members are empowered to make critical decisions, address complex on-site issues, and assume accountability for project success. Mentoring the upcoming generation of AV professionals is essential to cultivating the technical expertise and business acumen necessary to support the industry's next developmental phase.

Beyond Classrooms

How experience centers are transforming learning at India's premium educational institutions

As higher education institutions seek to bridge the gap between theory and real-world application, immersive experience centers are emerging as powerful tools for engagement, skilling, and industry readiness, creating significant opportunities for the AV industry. For generations, the classroom has been the heart of higher education. Yet in a world where students consume information through videos, simulations, social media, artificial intelligence, and immersive digital platforms, traditional teaching methods are increasingly challenged.

Today's learners have unprecedented access to information. What they often lack, however, is context, application, and experience.

This shift is prompting some of India's leading educational institutions to rethink how learning is delivered. Beyond smart classrooms and lecture capture systems, a new category of learning environments is emerging, including experience centers, immersive learning spaces, and industry-linked centers of excellence that allow students to interact with knowledge rather than simply consume it. While adoption remains limited, industry experts believe these spaces could fundamentally reshape higher education over the next decade.

The rise of experiential learning

According to Manmohan Ganesh, Managing Director of ProFX, a veteran AV industry leader who has worked on several educational projects, experience centers should not be confused with traditional laboratories or simulation environments.

"An experience center is essentially a storytelling medium," he explains. "It uses audio, video, interaction, and immersion to create a lasting impression. A simulation lab is different because students actively test and validate concepts. Experience centers are especially effective at helping people understand and remember."

That distinction is increasingly important as educational institutions explore new ways to engage students. Unlike conventional classrooms that rely primarily on lectures and presentations, experience centers create environments where students can see concepts unfold, interact with digital content, explore scenarios, and develop a deeper appreciation for the subject matter.

Sunil Subramanian
Senior Vice President of Business Development at EDC

"There's nothing like actually seeing something," says

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Manmohan. "You can be told about something, but that's not enough. Learning becomes much more powerful when students can experience it."

The concept is not entirely new. Planetariums have long served as immersive educational environments that help visitors understand astronomy through visualization and storytelling. Today's educational experience centers apply similar principles across disciplines, from engineering and healthcare to law and environmental science.

Not every experience center serves the same purpose

One of the key insights from our discussions with industry leaders was that educational institutions are deploying experience centers for a range of objectives. Manipal University's experience center is a case in point. While highly immersive and technologically sophisticated, its primary purpose is not curriculum delivery. Instead, it serves as an institutional storytelling platform.

"It is more about inspiring students and parents," explains Manmohan. "It showcases alumni achievements, patents, innovations, and how education can transform lives. Indirectly, it becomes a very powerful admissions and engagement tool."

This represents one category of experience center. The second category is far more closely linked to learning outcomes. These immersive environments are designed to help students understand concepts, develop practical skills, and build industry readiness. This second category is beginning to attract attention from progressive educational institutions.

Bridging the gap between academia and industry

For Sunil Subramanian, Senior Vice President of Business Development at EDDC, the biggest challenge facing higher education today is not access to information but the inability to translate knowledge into practical skills.

The quests are now coming from the institutions. They are approaching consultants and system integrators with clear objectives

Vipin Verma

"The gap between education and industry remains significant," he says. "Students understand theories, concepts, and processes, but they often struggle to see how they apply in the real world."

According to Sunil, students today face information overload rather than scarcity.

"There are thousands of videos online on almost any subject. But knowledge alone does not create competency. Students need opportunities to touch, feel, interact, and experience."

He believes that experience centers and centers of excellence play a critical role in bridging three key pillars: Learning, Competency, and Employability.

A civil engineering student may understand different grades of cement from a textbook, but may never have physically handled the material or understood where and why it is used. Similarly, a medical student may study anatomy extensively but benefit enormously from immersive visualization technologies that reveal structures layer by layer.

"Experience centers help students develop appreciation," says Sunil. "And appreciation is what ultimately transforms knowledge into skill."

KPR Institute's engineering experience center: A blueprint for the future

Perhaps one of the most compelling examples of experiential learning in India is the Engineering Experience Center at KPR Institute of Engineering and Technology, developed in partnership with Larsen & Toubro. The project was conceived to address a growing concern in engineering education: students were graduating with strong theoretical foundations but limited exposure to industrial practices.

"KPR had a vision," recalls Sunil. "They wanted students to understand how industry actually works, not after graduation but during their education."

The result was a nearly 4,000-square-foot experiential learning center developed through collaboration among KPR Institute, L&T, and EDDC.

The center combines physical engineering exhibits, interactive displays, virtual reality, augmented reality, BIM demonstrations, industry workflows, and collaborative learning environments.

Students not only learn concepts but also understand how infrastructure projects are designed, executed, monitored, and managed.

Industry experts regularly engage with students through workshops, demonstrations, and mentoring sessions.

Today, the center is an integral part of the learning process rather than a showcase facility.

"It is occupied almost every day," says Sunil. "Students spend dedicated hours there just as they would in a classroom or laboratory."

More importantly, it has strengthened industry-academia collaboration, directly benefiting students.

Educational institutions are beginning to recognize the opportunity

Although adoption remains relatively low, there is growing evidence that institutions are beginning to recognize the value of experiential learning.

Vipin Verma, Director of ConsultechPro, an AV consultant involved in several large-scale education projects, believes demand is increasingly driven by universities themselves.

"The realization is definitely happening," he says. "The requests are now coming from the institutions. They are approaching consultants and system integrators with clear objectives and asking for solutions that can improve engagement and learning."

Vipin Verma
Founder, Consultechpro

He points to projects such as Science Gallery Bengaluru and several emerging immersive educational initiatives that combine physical, digital, and live-learning experiences. One particularly interesting project nearing completion is a 250-seat educational planetarium designed for real-time astronomy learning.

"This is not just a planetarium," explains Vipin. "Students will learn through live satellite connectivity, real-time observations, and interactive educational sessions. It becomes a true learning environment."

Such projects demonstrate how educational experience centers are evolving from static displays to dynamic, continuously updated learning ecosystems.

The content challenge

While discussions about experience centers often focus on displays, projection systems, interactive technologies, and immersive environments, all three contributors agree that technology is only part of the equation.

The real challenge lies in content. Many institutions express interest in creating immersive learning environments, but struggle to identify where the content will come from. According to Manmohan, this is one of the biggest barriers to adoption.

"Institutions frequently tell us they want to create immersive biology experiences or interactive learning modules. But then the question becomes: where is the content?"

Creating educational content is not simply a matter of producing attractive visuals. Scientific accuracy, pedagogical relevance, curriculum alignment, and technical precision are essential.

Manmohan Ganesh
Managing Director, PRO FX Tech Ltd.

"You cannot simply ask a video creator to build a medical simulation," says Manmohan. "The content must be accurate. Sizes, colors, structures, everything has to be right."

Vipin agrees that content development is a rapidly growing segment of the market.

"The demand for specialized content creation is increasing significantly," he notes. "There are agencies focused entirely on immersive content, projection mapping, and experiential storytelling."

As AI-driven content creation tools mature, industry experts expect this challenge to become easier to address, accelerating adoption across the education sector.

Opportunities for the AV industry

For AV consultants and system integrators, educational experience centers are among the most exciting growth opportunities in the coming years.

However, success will require a different approach.

"Many people set up a room and call it an experience center," says Sunil. "But that's not enough."

Instead, consultants must focus on delivering complete educational ecosystems. This requires expertise in learning design, experience design, content strategy, technology integration, industry collaboration, and user engagement.

Sunil believes the most successful projects integrate multiple layers.

"When we design these environments, we bring together pedagogy, technology, content, applications, and space design. All these elements must work together."

The AV industry's role is therefore evolving from a hardware supplier to a learning experience partner.

The technologies driving experience centers

The technologies powering these environments continue to evolve rapidly.

Today's projects typically integrate a variety of advanced technologies, including large-format displays, interactive touchscreens, LED walls, and projection mapping systems. They often feature virtual reality platforms and augmented reality experiences that enhance engagement and interaction. In addition, spatial audio systems contribute to immersive soundscapes, while lecture capture solutions facilitate the documentation of sessions. Moreover, collaboration technologies play a crucial role in facilitating teamwork and communication among participants.

Artificial intelligence is emerging as the next major layer. According to Sunil, future experience centers will increasingly feature conversational AI interfaces and digital avatars that guide students through their learning journeys.

"We are already creating AI-powered experiences where students can interact with virtual guides and ask questions naturally," he says. Robotics is also finding a place in educational environments.

"We use AI robots that welcome visitors, explain exhibits, guide students, and enhance engagement," he adds.

Looking ahead

Despite modest current adoption, all three contributors agree that the future is bright. Manmohan predicts that immersive learning environments will become far more common over the next three to five years as content creation becomes easier and educational institutions gain greater confidence in the model. Vipin sees universities increasingly driving these initiatives from within, reflecting a growing awareness of the importance of engagement and experiential learning. Sunil believes the broader transformation is already underway.

"The classroom alone is no longer enough," he says. "Students need experiences that connect learning with industry, with skill, and with their future careers."

For educational institutions, experience centers offer a pathway to more engaging, relevant, and impactful learning. For students, they provide opportunities to move beyond theory and develop practical understanding. And for the AV industry, they represent an opportunity to play a strategic role in shaping the future of education.

The classroom is no longer the student's entire world. Learning must extend beyond the classroom to experiences that build understanding, competency, and industry readiness.

Sunil Subramanian

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What Makes a Smart Classroom Smart

Why intelligent design, hybrid readiness, and measurable outcomes matter more than expensive hardware

The term 'smart classroom' is currently employed so ubiquitously that it risks becoming devoid of its original significance. Upon entering any recently renovated facility on an Indian university campus, one is likely to encounter an interactive flat panel, an IP camera, and a room-control panel, with someone proudly referring to it as a smart room. However, for AV consultants and integrators engaged in delivering medium to large-scale projects for prestigious educational institutions, the distinction between a room equipped with costly hardware and a genuinely intelligent learning environment is not merely semantic. It delineates the difference between a client who commissions you for the next building and one who quietly discontinues the engagement.

Because this is one of the largest L2 installations anywhere in the world, L-Acoustics sent Joshua Maichele (Global Applications Lead for Houses of Worship, L-Acoustics), their specialist, on five flights from the United States to Chennai to personally oversee the final calibration in March. That level of commitment from the manufacturer speaks volumes about the project's scale and significance.

India's educational technology market is currently at a remarkable inflection point. According to IMARC Group, the Indian EdTech market, valued at USD 3.63 billion in 2025, is projected to reach USD 33.31 billion by 2034, exhibiting a compound annual growth rate of nearly 28%. The India Brand Equity Foundation estimates the broader edtech sector to be worth Rs. 2,50,850 crore (approximately USD 29–30 billion) by 2030–31. Concurrently, India possesses a population of 580 million individuals aged 5–24 years, representing the largest youth educational demographic globally. This constitutes a fundamental shift in how premium institutions perceive technology investments: not as a deferred expense but as a strategic imperative for maintaining institutional relevance and enhancing student outcomes.

The hardware trap

The most prevalent mode of failure in premium educational AV projects is the hardware trap: evaluating quality based on the specification sheet rather than on learning outcomes. An impressive 4K interactive flat panel, a Dante audio matrix, and a bespoke room-control graphical user interface are notable; however, they become entirely irrelevant if faculty members are unable to operate them reliably or if remote students are unable to hear the presenter effectively. Since 2020, India's classrooms have experienced a surge in technological investment; nonetheless, a recurring pattern has emerged: institutions tend to procure hardware in response to ranking pressures or announcements by competitors, leading to the acquisition of costly equipment that remains underutilized.

Faculty readiness continues to be a well-documented challenge. The DEIFDC index, which monitors digital education infrastructure across Indian institutions, rates the country at 0.596, identifying infrastructure deficiencies and pedagogical limitations as primary impediments. Research indicates that faculty unpreparedness is a principal constraint on digital education outcomes, alongside issues related to connectivity and device affordability. For systems integrators, this data functions as a guiding design brief. The critical question is how to guarantee that technology functions reliably when used by a lecturer who has only twelve minutes between classes and minimal tolerance for troubleshooting. In environments where institutional patience for downtime is low, designing for reliability becomes the most pivotal decision.

Intelligence is in the architecture

A smart classroom's effectiveness relies on its integrated architecture. AVoIP has become essential for large-scale deployments, as it simplifies scaling and management compared to traditional point-to-point AV systems. For

multi-building campuses in India, unified management is crucial. Success with AVoIP depends on a robust data network. While top institutions invest in campus networking, AV teams are often not involved in planning. The best integrators work early with IT, specify QoS and bandwidth needs, and include network upgrades in project plans before purchasing displays.

Hybrid is not a mode; It is the default

Design for hybrid first must govern every premium education AV project in 2026. India's higher education system has been permanently reshaped by policy direction. The NEP 2020 aims to increase the Gross Enrolment Ratio to 50% by 2035, emphasizing blended and online learning. Platforms like SWAYAM and DIKSHA 2.0 indicate hybrid delivery as the permanent model.

AV integrators should move beyond optimizing lecture halls for local audiences alone. Baseline specs now include AI auto-tracking cameras, beam-forming microphones, and echo cancellation. With over 900 million active internet users in 2025 and rural broadband expanding, remote learners from Tier 2 and Tier 3 cities form a significant part of enrollments. Integrators must plan for low-bandwidth fallback and focus on high-quality audio to ensure hybrid access.

AI: Practical today, transformative tomorrow

AI has moved decisively beyond marketing buzzwords to deliver measurable value. The most immediately actionable AI applications are at the device level: auto-framing cameras that track presenters, intelligent audio systems that isolate speech, and room analytics platforms that capture occupancy and technology usage patterns.

This data is vital in the Indian context. Institutions competing for NAAC accreditation, NBA certification, or positions in the NIRF rankings face growing pressure to demonstrate that infrastructure investments translate into learning outcomes. Aggregated room analytics data presented in a dashboard provides facilities leadership and academic administration with compelling proof of utilization. DIKSHA 2.0's launch and UNICEF India's December 2024 consultation on generative AI and AR/VR point to a future where the classroom functions as a data-generating environment. Integrators who design data architecture into their projects now, while respecting India's Personal Data Protection framework, will hold a substantial competitive edge.

What premium institutions truly seek

Premium education clients ultimately seek confidence that technology will work every time a faculty member walks into a room, that investments will not become obsolete before the next NAAC cycle, and that a knowledgeable partner will respond immediately when issues arise. Consequently, the integrator's role has expanded from vendor to strategic partner, bringing insights into pedagogy, utilization data, and service continuity.

Campus-wide standardization is another critical requirement. Institutions with legacy systems and mixed procurement histories want a consistent, recognizable user experience from small tutorial rooms to 500-seat auditoriums. Standardization reduces faculty training overhead, simplifies support for stretched IT teams, and creates the conditions for genuine scalability while securing predictable managed services revenue for the integrator.

The integrator's checklist for smarter projects

To create a successful AVoIP implementation, prioritize design for reliability with simplified switching, intuitive room control, and high acoustic performance to address common issues like reverberance and HVAC noise. Engage IT early by clearly documenting Quality of Service (QoS) and bandwidth requirements and obtaining written commitments to ensure project success. Ensure hybrid equity by providing remote participants a functionally equivalent experience to in-person attendees, recognizing Tier 2/3 remote learners as essential users. Embed room analytics to support institutional documentation requirements for NAAC, NBA, and NIRF. Lead with managed services by offering long-term agreements to foster durable client relationships instead of treating projects transactionally. Lastly, drive campus standardization by implementing consistent user interfaces across all learning spaces to reduce training overhead and streamline institutional support.

Conclusion: Intelligence is earned, not installed

India's smart classroom market is a major global opportunity, driven by a large youth population, government initiatives like PM eVidya and NEP 2020, and private sector interest. Competition will highlight the difference between those who provide just specifications and those who deliver real outcomes. Truly smart classrooms require thoughtful design, reliable performance, continuous service, and a focus on measuring learning outcomes. With the market reaching USD 33 billion by 2034, integrators offering true value will shape future education.

Breaking the Sound Barrier

N-Labs rewrites the rules of Indian Pro AV

Started as a rental company and now competing with global audio brands, N-Labs has come a long way in a short span of time. Hemal Bhatt, the founder of N-Labs, shares his journey with AV Today in this exclusive podcast. Hemal initially imported speakers from other countries, but soon realized they were not adaptable to Indian weather conditions, which led him to pursue manufacturing and ultimately the birth of N-Labs.

What emerged from our conversation was an explosive masterclass in grit, engineering accountability, and forward-thinking disruption. What happens when a homegrown brand stops merely mimicking foreign competitors and starts building specifically for the extreme demands of the Indian market?

Hemal's journey didn't begin in an abstract R&D lab; it was forged in the demanding, unforgiving trenches of the live audio rental industry. After joining his father's rental business in 2007, he spent years dealing firsthand with local use cases that international gear simply wasn't designed to handle.

"The temperature and climate here are not what we see in the US or European countries," Hemal notes. Beyond climate, international brands failed to account for the scalability and rugged durability required for massive Indian roadshows, political rallies, and multi-day weddings. When N-Labs committed entirely to domestic manufacturing during the pandemic, it shifted from 100% imported goods to thriving on localized production across six to seven factories in Gujarat.

But how exactly did N-Labs scale from a 10- to 15-person R&D squad during the COVID lockdown into a national market leader? In the podcast, Hemal breaks down the operational timeline.

While competitive pricing naturally comes with local assembly, Hemal reveals that N-Labs' real secret weapon is an obsessive focus on after-sales service. To protect system integrators and consultants from client backlash, N-Labs built a support ecosystem capable of a blistering 25- to 30-minute repair turnaround.

Hear the full story in the video about how N-Labs rescued a major Ahmedabad cafe's massive 24-speaker deployment just hours before its grand inauguration, after an international brand's design failed.

For systems integrators and AV consultants, the pivotal moment occurred when N-Labs decisively adopted standardized audio ecosystems aligned with and surpassing international benchmarks such as Acoustic Math Precision, IT Network Harmony, End-to-End Ecosystems, and the Ultimate Teaser. N-Labs stands out as the first Indian manufacturer to offer 100% authentic, AFMG-approved GLL data files compatible with full EASE software simulation, enabling precise venue mapping through mathematical accuracy. With the integration of native, certified Audinate Dante networking protocols and AES67 compatibility, N-Lab's hardware seamlessly connects professional audio with enterprise IT infrastructure. Their range includes network-enabled PoE switches and architectural audio systems, creating a comprehensive, domestically produced infrastructure. The discussion then shifts to the exciting realm of Broadcast AV when Hemal reveals N-Labs' latest innovation. Unlike most network-enabled AV systems that rely on heavily compressed feeds, Hemal introduces their new Dante AV Ultra integration. This advancement permits broadcasters and premium venues to transmit raw, uncompressed 4K/60fps video over standard network cables with latency under 5 milliseconds. For a detailed demonstration of how this technology enables a single camera stream to be multicast simultaneously to editors, matrix walls, and global broadcasts in real time, watching his full presentation is highly recommended.

As India's pro AV industry grows, attitudes are evolving. Hemal emphasizes that "Making in India" is now the key to growth. Don't just rely on the summarized print highlights; experience the technical demos, understand the underlying philosophy, and learn how N-Labs is gearing up for international events like InfoComm and ISE.

Scan the QR code below to go straight to the AV Today Techtalk Podcast video on YouTube.

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Interactive Flat Panels: Promise vs. Practice

Evaluating interactive flat panels in modern education

The global education sector is experiencing a major shift due to digital advancements. Traditional blackboards are rapidly being replaced by Interactive Flat Panels (IFPs), also known as smart boards. Thanks to forward-thinking national policies and a global push to adopt Information and Communication Technology (ICT), schools, from elite international institutions to under-resourced public schools, are investing heavily in these large displays. Marketing from hardware suppliers often claims that these tools will transform classroom learning: making it more vibrant, interactive, teacher-friendly, and engaging for students.

However, beneath the sleek glass and multi-touch features, a clear operational challenge emerges. Studies from top educational bodies show a notable disconnect between the potential of IFPs and their actual everyday use. For many teachers, these expensive devices have merely become complex, high-maintenance chalkboards.

To bridge this gap, the AV industry needs to focus less on technical specs and more on understanding the pedagogical, spatial, and software needs specific to each educational environment.

The reality of adoption: Potential vs. Practice

Research across educational ICT consistently shows that teachers use less than 20% of an IFP's advanced features. Although classroom infrastructure has evolved, instructional methods have largely remained unchanged. Typically, the panel serves only as a display surface for text-heavy PDFs, standard slides, or streamed videos. Its potential for dynamic cloud collaboration, multi-student split-screen interaction, real-time assessments, and subject-specific simulations remains untapped.

Industry research highlights multiple structural barriers causing this persistent underuse:

The time crunch – Teachers face a packed, exam-focused schedule with little downtime. Navigating complex software, multi-step logins, or slow startups eats valuable teaching moments, discouraging experimentation with advanced features.

Content gaps – While hardware is often bought in bulk, it's seldom accompanied by localized, curriculum-aligned digital materials. Teachers forced to create or adapt resources during off-hours face an unsustainable workload. Without native content integration, the hardware's utility diminishes.

Confidence issues – A lack of ongoing professional development fuels technology anxiety among teachers. Facing large classes, educators tend to stick with traditional methods rather than risk technical problems or interface issues during lessons.

Technical archetypes: analysing current display architecture

To understand why this operational disconnect occurs, it is essential to analyze the structural design, feature sets, and functional limitations of the prominent IFP technical archetypes deployed across institutional frameworks today. Considering the architectural focus:

Enterprise & Ecosystem-Centric – Strengths include advanced eye care, native cloud integrations, and secure user-profile switching, but high costs, technology maturity, and network stability pose operational challenges.

High-Luminance Optical Engineering – Offers high brightness, color rendering, and good legibility, but interfaces favor corporate settings over

K-12 workflows, creating vulnerabilities.

Sensor & Algorithmic Innovation – Features AI sensory tracking, precise touch, and advanced whiteboarding, but has a steep learning curve, and hardware requires precise lighting and frequent calibration.

Localized Platform-Driven – Integrates LMS, workflows, and curriculum tools, yet hardware durability in tough environments remains unproven.

Value-Engineered All-in-One – Cost-effective with integrated computing, audio, and display; however, lower-tier processors cause UI lag under heavy use.

Premium Platform-Agnostic – Provides low-latency collaboration and a durable build, but pricing restricts deployment to elite institutions.

Ruggedized High-Volume – Offers competitive pricing and a durable chassis, but proprietary software and slow updates limit features.

Enterprise, ecosystem, and optical archetypes

Ecosystem-centric designs focus on student and teacher health with features like anti-germ coatings and low-blue-light filters. Recent versions have enterprise OS certifications, allowing access to cloud workspaces. However, data show these complex ecosystems are pedagogically effective mainly on highly digital campuses with strong IT. High-luminance 4K displays handle classroom sunlight well, but their interfaces often look corporate and lack intuitive K-12 workflows.

Sensor-intensive vs. Localized platform archetypes

Sensor-rich designs utilize advanced visual touch-tracking and interactive algorithms. While innovative for precise math plotting and scientific graphing, they present a steep learning curve and need detailed initial calibration, which can frustrate non-technical staff when classroom setups change. In contrast, localized platform-based systems connect the physical panel directly to comprehensive, native Learning Management Systems (LMS). By incorporating automated tools tailored to national curricula, such as digital attendance, parent notifications, and auto quiz-building, they help alleviate teachers' time pressures. Nonetheless, because these systems emphasize software flexibility, their hardware manufacturing quality and durability in diverse, unconditioned environments are essential considerations.

Value-engineered and ruggedized mass-market archetypes

Value-engineered all-in-one panels lead high-volume, budget-conscious institutional procurements thanks to their competitive pricing and sleek designs. Nonetheless, field studies show that lower-tier models often experience user-interface lag, processing delays, and thermal throttling during demanding, multi-touch educational activities. At the top end, premium platform-agnostic displays deliver ultra-responsive, low-latency touch experiences, making them ideal for postgraduate lecture halls. However, their high cost prevents widespread adoption in K-12 public schools. This gap is typically filled by rugged, high-capacity models offering physical durability and extensive local service networks, though they usually come with very basic proprietary whiteboarding software that functions mainly as a digital chalkboard.

Critical blind spots in current smart classroom design

Although technical sheets highlight features like up to 40 simultaneous touches, powerful processors, and large RAM capacities, the current generation of IFPs faces significant design issues when used in real-world educational settings.

1. Misalignment with curricular standards

Most international panels come with generic, global interactive platforms that lack integration with regional or national curricula. Teachers cannot easily access structured, chapter-specific 3D models or localized interactive diagrams directly from the device's interface. Instead, they have to switch away from the primary app to use web browsers or external storage, disrupting the lesson flow and dividing student attention.

2. Environmental and electrical challenges

Schools outside major urban areas often deal with dust, high humidity, and unstable electrical power. Many commercial panels do not have adequate dust protection (IP ratings suitable for tough environments) or built-in surge protection. When internal components fail due to power issues or dust accumulation in optical or infrared touch frames, the entire classroom loses its main teaching tool. Extended support delays in regional networks make the problem worse.

3. Lack of usage data for administrators

From a management perspective, schools spend considerable funds on IFPs without clear insight into their return on investment. Current systems lack centralized dashboards that provide detailed, automated usage analytics. School leaders cannot see how many hours the panels are used weekly, which apps are launched, or if the devices are used for interactive learning or just as expensive displays. This data gap prevents tailored teacher training and improvement efforts.

The next evolution: The unified collaboration hub

As global education shifts toward hybrid and flexible learning models, the future of the interactive flat panel should no longer be limited to a standalone classroom display. Instead, smart boards must evolve into versatile, multi-directional collaboration centers. Hardware should include built-in, high-quality features like wide-angle, AI-powered tracking cameras and microphone arrays with smart acoustic fencing—no longer optional extras. These tools should be standard, ensuring remote students have the same seamless experience, viewing clear annotations and peer interactions in real time without lag or glare issues. Additionally, cloud synchronization must be effortless and fully automated. Teachers should quickly authenticate via QR code or biometric login, conduct interactive lessons with AI-generated transcripts and quizzes, and have everything automatically synced with the LMS and shared to students' devices without disruption.

Conclusion

Ultimately, technology is successful when it becomes seamless. To fully realize the potential of interactive flat panels, manufacturers and AV integrators should move beyond just promoting hardware specs. Instead, the industry needs to develop complete, durable, and highly localized software ecosystems that ease the daily workload of educators.

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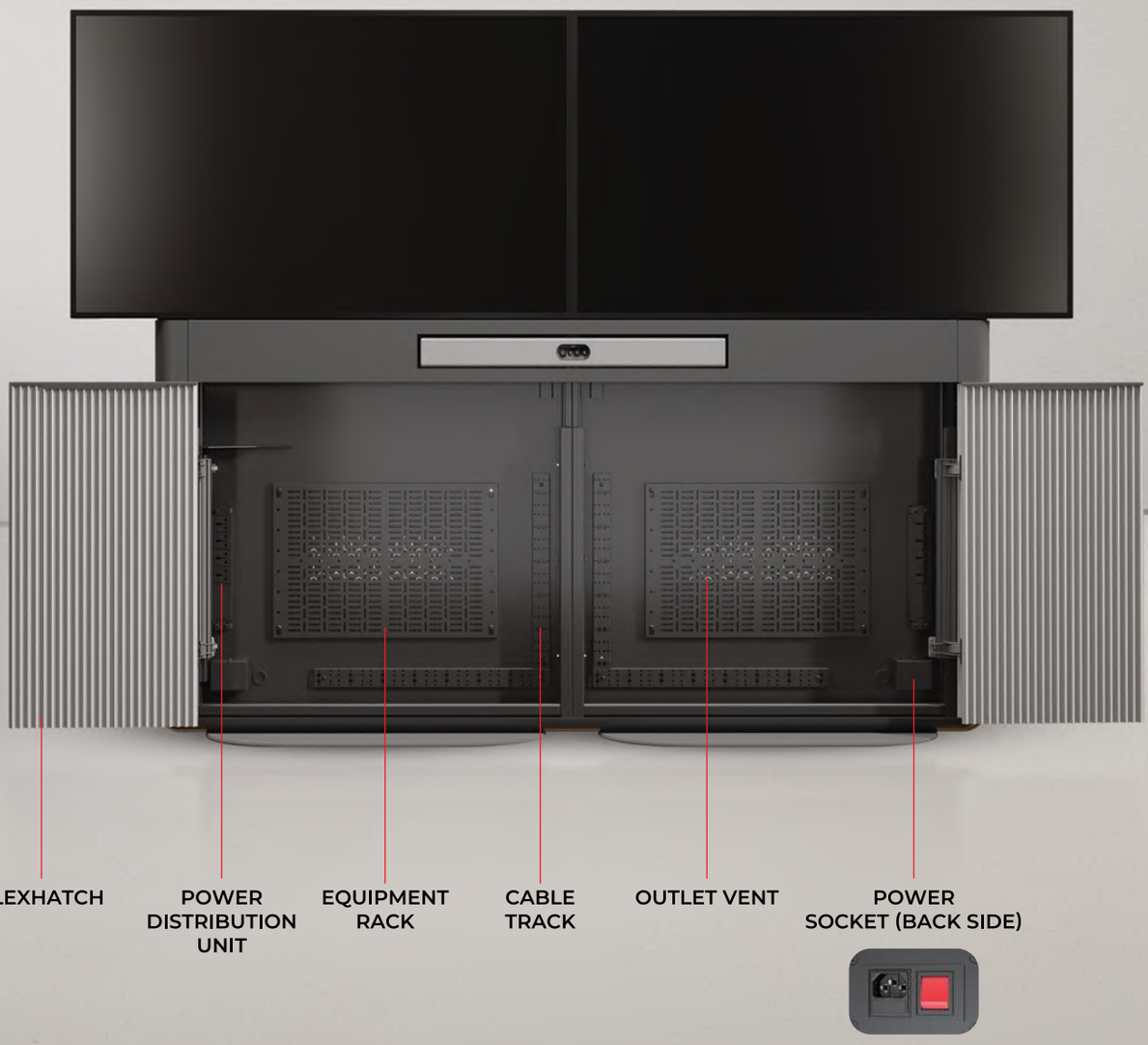

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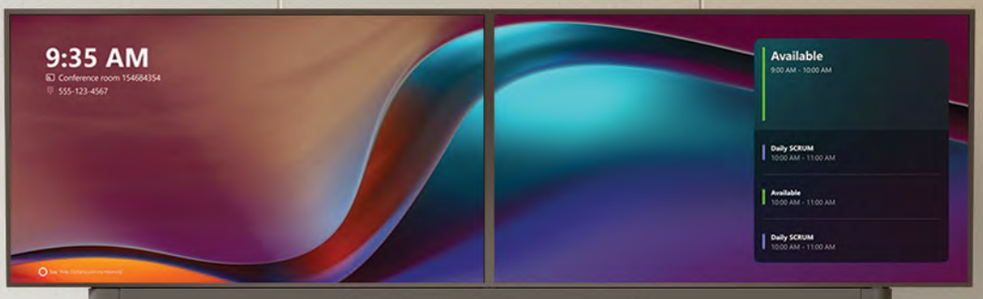

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A Transformative Learning Canvas

Shri Ram Universal School's mini auditorium features the global adularescent AV way

India's education architecture is evolving. Traditional classrooms and formal halls are giving way to versatile, inspiring spaces that promote free expression. The Shri Ram Universal School (TSUS) in Bengaluru focuses on innovative, child-centric methods inspired by the Shri Ram Schools. When designing a performance and assembly space at TSUS, the leadership rejected traditional auditorium designs, opting for a casual, immersive environment where children can sit comfortably on the floor or on informal structures, fostering a stronger connection with performances. The project was executed by Design Decode and the Hansa Group, with Hansa providing advanced AV and lighting solutions for nearly 80 years.

Engineering turntable versatility

The mini auditorium's design philosophy was rooted in spatial agility. As a newly established institution testing the waters of the competitive school franchise market, the management team required a multi-functional space that could serve as a marketing differentiator and an agile, daily-use campus asset. The goal was to build a highly engaging "mini auditorium" that could accommodate approximately 200 children in an informal setting. This space would serve the campus for three to four years before the institution eventually expanded into a larger, full-scale traditional auditorium complex.

Gautam, head of the project delivery team for Hansa Group, emphasizes the strategic importance of the space's dual-purpose design. "The core architectural concept presented to us by the architects and the management was centered on absolute flexibility. In a traditional school setting, a class might have 100 to 150 students. The moment they transition into this mini auditorium, the environment shifts seamlessly to support a larger, more casual gathering of 350 to 400 people on a rolling schedule. Students are seated informally; they can bring in their laptops, stretch their legs, or sit casually on cushioned tiers while listening to a lecture or an interactive presentation. It fosters a completely different, uninhibited mood that strips away the academic anxiety often associated with formal spaces."

This conceptual framework transformed the auditorium from a single-use space reserved for major annual events into an everyday extension of the classroom. On any given day, the hall transitions from a large-scale art workshop to an impromptu choir rehearsal, an interactive storytelling seminar, or a screening space for parents and educators.

Overcoming spatial & acoustic barriers

Translating a highly creative architectural vision into an acoustically viable performance space presented a unique set of structural and administrative hurdles. The mini auditorium is integrated directly into a multi-story building, occupying a structural footprint that spans two and a half floors in volume. With a clearance height of 23 feet, a width of 32 feet, and a total length of 68 feet, the room's proportions posed immediate acoustic challenges.

When Hansa Group received the initial structural drawings from Design Decode, they identified critical acoustic flaws. Because the architects focused primarily on aesthetic finish and spatial lines, they overlooked reverberation times and acoustic isolation. Left unaddressed, the hard-surfaced parallel walls, wide floor expanses, and high ceilings would have created an uncontrollable echo chamber. This would have ruined speech intelligibility, making it impossible to deliver clear audio for lectures or performances.

Gautam recalls the initial design alignment process. "Our immediate reaction upon reviewing the volume was that while the room was compact, the potential for destructive audio reflections was

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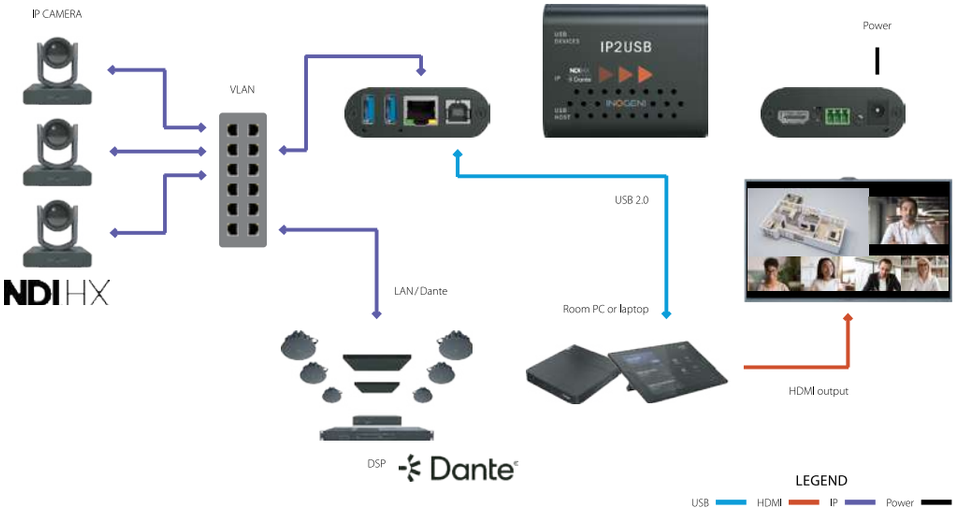

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immense, especially given the multi-purpose, movie-viewing, and live-performance use cases. We stepped in and provided the architect with a complete acoustic design blueprint based on rigorous Reverberation Time (RT60) simulations. There was initial aesthetic hesitation from the design team regarding how the raw acoustic boards would look. To overcome this, we escorted them to two of our recently executed corporate and educational sites in Bengaluru, demonstrating how custom fabric wrapping integrates acoustic treatment into the design language."

A major design compromise was made to respect the architect's signature style, which featured extensive use of premium teak wood paneling and decorative side bases near the curtain areas. Rather than demanding full wrapping of all four boundaries, Hansa Group engineered a targeted acoustic plan. They focused 100% of the calculated absorption materials on the high-volume ceiling grid and the critical rear wall. The stage backdrop was meticulously fabric-wrapped to maintain visual uniformity, while the left and right walls remained untreated to preserve the clean wood architectural features. The solution included Fully Treated (Custom Density Acoustic Boards) Ceiling Grid, Fully Treated (High-Absorption Layering) Rear Wall, Uniform Fabric Wrap (Non-Reflective Aesthetic) Stage Backdrop, Untreated (Preserved Teak Wood Architectural Accents) Lateral Walls, and HVAC Duct Modification & Structural Waterproofing Civil Co-ordination.

Hansa Group faced coordination challenges with external agencies, especially with an HVAC vendor who designed bulky ducts based on room volume, affecting sightlines and speaker placement. After intense meetings, a redesign replaced bulky ducts with slimmer ones. Unexpected monsoon rains revealed roofing gaps before the framework, requiring urgent waterproofing and extending the project from 75 to 120 days.

The system integrator's perspective

Insight from Gautam, Turnkey Project Director at Hansa Group:

Our journey over the past 79 years has taught us that the technical success of a project relies heavily on seamless coordination across all trades. At The Shri Ram Universal School, we didn't just walk in as an AV installer; we acted as true turnkey partners. This gave us the freedom to adjust the HVAC paths when they blocked the line of sight for our Panasonic projection beams, and allowed us to tune the ceiling panels to match our Sonodyne speaker angles. When you give a client a single point of contact for acoustics, interior finishes, drapery, lighting, and audio processing, you eliminate communication gaps entirely. The end result is an inviting, high-performance space where students can sit casually, collaborate freely, and enjoy an immersive environment. We are proud to have delivered a modern asset that supports the innovative, child-centric educational vision of the Shri Ram community.

Sonic clarity by Sonodyne

Once the acoustic framework was finalized, Hansa Group chose an audio system that delivers consistent sound coverage for every student, whether seated at the front or the back. The team opted for Sonodyne, a renowned Indian audio manufacturer with over 50 years of experience in high-fidelity engineering, active studio monitors, and durable loudspeakers.

The system was designed to keep the casual floor seating area free of obstructions, preventing children from running around and tripping over cables or colliding with floor-standing equipment. All loudspeakers were suspended

from the structural ceiling grid. The Front of House (FOH) setup includes two premium 12-inch Sonodyne SLX-1120 loudspeakers, with two additional SLX-1120 units positioned midway down the hall as delay fills.

Powered by a high-efficiency Sonodyne SLA-3006 amplifier, this configuration ensures even sound pressure levels across the 68-foot-deep space. It provides clear high frequencies and warm mid-tones without overdriving the main front cluster.

For low-frequency content during movie screenings and lively dance performances, a heavy-duty Sonodyne SPA-215P active subwoofer was suspended from the ceiling grid near the FOH cluster, keeping the floor free of sub-bass enclosures. For on-stage monitoring during performances such as skits or choral recitals, a low-profile Sonodyne SPA-1210B powered stage monitor was installed to deliver clear, localized feedback.

Advanced mixing and capture

The backend audio routing is built around a high-performance Studiomaster DigiLive 16 digital mixing console. Unlike standard analog boards, this compact 16-channel digital mixer lets school operators save and recall custom scene presets for daily activities—such as morning assemblies, guest lectures, or theatrical performances. The processing chain is managed by a Studiomaster SMS-480 digital signal processor (DSP), which handles crossover slopes, system EQ, and limiting protection across all flown speaker zones.

Hansa Group used versatile microphones to suit different presentation styles. For general events, wireless systems like Studiomaster TR-44 HH handheld and TR-44 LL lavalier provide wireless freedom. Lead vocals use a Shure SM-58 wired mic, with a Studiomaster SM-650XLR for auxiliary vocals. A Shure MX418 D/C gooseneck mic at the podium handles formal addresses. The team avoided complex boundary or shotgun arrays, favoring simple, durable wireless mics suitable for schoolchildren, ensuring reliable daily use.

Visual and lighting immersion

Complementing the audio design is a high-brightness visual projection system built to withstand ambient light leaking through wood-paneled windows. Instead of a costly, fragile active LED videowall, Hansa Group installed a Panasonic PT-MZ882WH laser projector. With 8,200 lumens, this solid-state laser projects crisp, high-contrast images onto a 16ft x 10ft Lumina Fixed Frame Projection Screen at the rear stage wall, providing a reliable canvas for documentaries, educational content, digital backdrops, and interactive presentations.

The theatrical system relies on a flexible lighting grid designed by Hansa. The stage is illuminated by energy-efficient RGB PAR lamps, profile spot fixtures, and dynamic spotlights managed via a DMX control board. This setup allows users to design creative lighting scenes, quickly changing the room's mood from an art studio to a theatrical stage. Hansa also supplied ambient lighting fixtures that match the architecture's color temperature, ensuring flicker-free visuals during recordings.

The Turnkey advantage

The successful handover of The Shri Ram Universal School mini auditorium highlights the importance of unified project management. Managing acoustics, electronics, and interior architecture separately often causes vendor conflicts. By taking full ownership of acoustics, AV, lighting, soundproof doors, stage drapes, and flooring, Hansa Group ensured quality and timelines. The client was pleased with the project's financial performance. Instead of costly global brand rollouts, Hansa Group's tailored design with high-value components like Sonodyne, Panasonic, and Studiomaster created an excellent experience for 50 Lakhs, fitting the school's expansion budget. The auditorium's first performance in November was a success, with the system working flawlessly and offering a fresh take on mini auditorium design.

Complete equipment manifest at a glance

FOH & Delay Loudspeakers	4 x Sonodyne SLX-1120 (12-inch Enclosures)
Power Amplification	1 x Sonodyne SLA-3006 Professional Unit
Low-Frequency Support	1 x Sonodyne SPA-215P Flown Active Subwoofer
Stage Monitoring	1 x Sonodyne SPA-1210B Powered Wedge Monitor
Control & Mixing Core	1 x Studiomaster DigiLive 16 Digital Console
Audio DSP Routing	1 x Studiomaster SMS-480 System Processor
Wireless Capture Systems	1 x Studiomaster TR-44 HH Dual Handheld & 1 x TR-44 LL Dual Lavalier Spec
Premium Vocal Capture	1 x Shure SM-58 Legendary Wired Dynamic Mic
Auxiliary Handheld Mics	1 x Studiomaster SM-650XLR Dynamic Microphone
Rostrum & Podium Input	1 x Shure MX418 D/C Professional Gooseneck

The "Phygital" Classroom and Integrated AV Ecosystems

An equitable learning landscape

The boundaries distinguishing physical learning environments from digital interfaces have entirely dissipated. What was once celebrated as the "hybrid classroom," a reactionary, pandemic-era solution relying on static cameras and isolated Zoom feeds, has evolved into a highly sophisticated, permanently unified architectural standard: The Phygital Classroom.

For contemporary higher education and enterprise training spaces, "phygital" signifies a profound design philosophy where physical architecture and virtual learning platforms are seamlessly integrated through an automated, hardware-software interconnected AV ecosystem. This paradigm emphasizes spatial equity, ensuring that remote students or participants are as cognitively engaged, visually represented, and acoustically present as their colleagues seated in the front rows.

Achieving this necessitates a departure from fragmented hardware components. Modern technological integration concentrates on deploying intelligent, self-orchestrating AV environments driven by edge computing, automated software, and multi-layered hardware configurations.

Phygital architecture: Four pillars of integrated AV ecosystems

To establish an equitable learning landscape, an AV ecosystem must operate as a unified, distributed computing network rather than a series of disconnected inputs and outputs. Integrators and technology architects are designing these contemporary learning environments based on four fundamental technical pillars.

1. Cognitive audio and beamforming environments

In an interactive classroom environment, the quality of audio is the primary indicator of participant fatigue. If a remote learner is unable to hear a whispered question from a student at the rear of the lecture hall, their cognitive engagement significantly diminishes.

Modern architectural designs incorporate ceiling-mounted multi-element beamforming microphone arrays, which are directly connected to localized Digital Signal Processors (DSPs). Instead of simply covering a room with generic audio capture, these microphone arrays utilize automated tracking zones to immediately focus acoustic "beams' on the active speaker, effectively suppressing ambient HVAC noise and room reflections.

On the output side, multichannel, zoned spatial audio reinforcement systems accurately map remote voices to physical loudspeakers positioned closest to the location of their digital video avatars. This innovative spatial alignment provides natural directional cues to the physical instructor.

2. Intelligent computer vision and automated framing

The days of compelling an instructor to remain perfectly stationary behind a podium are gone. Phygital ecosystems employ distributed multi-camera networks equipped with AI-powered computer vision algorithms.

These integrated systems continuously analyse the physical environment utilizing skeletal tracking and facial recognition to automatically coordinate camera perspectives without human intervention. When an instructor moves to a physical whiteboard, the system seamlessly transitions to an optimal camera angle while implementing real-time keystoning corrections to digitally flatten and enhance handwritten text for remote viewers. Concurrently, secondary tracking cameras supervise the student gallery, instantly cropping and framing local participants when they speak to provide high-definition close-ups directly to the virtual platform.

3. Unified hybrid canvases and spatial telepresence

To achieve true interaction parity, physical

classrooms require extensive digital real estate. Standard 16:9 projection screens are rapidly being replaced by ultra-wide, panoramic Direct-View LED (DVLED) displays with customised aspect ratios (such as 21:9 or 32:9).

These oversized canvases are driven by advanced media servers that run unified collaboration interfaces (e.g., Microsoft Teams Rooms Front Row or Zoom Rooms). By dedicating the bottom portion of a massive, life-sized display to eye-level video feeds of remote students, the physical instructor can maintain natural, unforced eye contact with both physical and virtual groups simultaneously. The remaining segments of the display dynamically allocate space for interactive course content, real-time chats, and digital whiteboards, keeping all vital materials fully visible in a single cohesive view.

decoders route uncompressed, ultra-low-latency 4K video and multi-channel audio over standard enterprise network infrastructure. Centralised control processors serve as the room's physical brain, listening for API triggers from the collaboration software. When a user launches a virtual learning session, the room automatically responds: lighting grids shift to pre-configured video profiles, audio routing tables reconfigure to accommodate remote callers, and environmental sensors monitor air quality and occupancy to ensure optimal comfort.

The integrator's blueprint for phygital delivery

For AV integrators, consultants, and IT directors, planning and building an effective phygital classroom requires moving away from the traditional approach of compiling disparate product datasheets. True integration demands a rigorous, lifecycle-focused implementation framework.

system to an active, context-aware collaborator. The ongoing integration of lightweight Artificial Intelligence engines and real-time learning analytics into localised AV control processors is paving the way for classrooms that adapt dynamically to human behaviour.

Future-proof control processors will soon go beyond tracking a speaker's physical position. They will monitor anonymised spatial acoustics, engagement analytics, and real-time environmental data to dynamically modify the learning landscape. If a localised microphone array detects a drop in vocal energy or ambient noise disruption, the DSP will instantly re-profile the audio matrix, while the environmental control loops optimise lighting and air delivery to maintain student focus.

Implementation phase	Key architectural tasks	Critical technical benchmarks
1. Environmental acoustic evaluation	• Map RT60 (reverberation time) across multiple frequencies. • Identify structural HVAC noise entry points. • Design localised acoustic treatment layouts.	Target RT60 values strictly between 0.4 and 0.6 seconds for crisp speech capture.
2. Core network provisioning	• Configure dedicated IGMP Snooping and Querier settings. • Establish strict Quality of Service (QoS) voice/video profiling. • Segregate AV traffic onto dedicated, secure VLANs.	Maintain a non-blocking network backplane capable of sustained 10 Gbps bi-directional multicast routing.
3. Unified control scripting	• Program hardware macros bound directly to cloud platform API states. • Implement automated failover routes for backup peripherals. • Build intuitive, single-touch UI layouts for end-users.	Eliminate manual peripheral configuration; achieve full room readiness in under 5 seconds from a single touch.
4. Telemetry deployment	• Interface occupancy counters with automated room controllers. • Route device health status (SNMP) to centralised dashboards. • Enable cloud-based remote system configuration and patch tools.	Achieve zero-touch room resets; deliver real-time system fault alerts to IT support within 60 seconds.

4. Hardware-software co-design and orchestration

At the core of the phygital space is the tight alignment between hardware components and the unified software layer. A truly integrated ecosystem operates on a distributed architecture in which edge hardware communicates natively with cloud-hosted platforms.

Networked AV-over-IP (AVoIP) encoders and

The next horizon: Intelligent, context-aware learning spaces

As we look to the future, the phygital AV ecosystem will continue to evolve from a reactive

For AV professionals, the objective is crystal clear. We are no longer simply mounting displays, running copper cables, and balancing audio frequencies. We are building unified, highly responsive computational environments. By prioritising hardware-software harmony, spatial equity, and open API standardisation, the modern AV integrator is designing the architectural foundation of modern education, one seamless phygital space at a time.

Beyond the Brochure

Why AV consultants and integrators in India must rethink their marketing approach

Walk into any AV trade show in India today, and you'll find no shortage of impressive engineering. Immersive façades, intelligent conferencing systems, museum experiences, and government command centers. Indian AV consultants and system integrators (SIs) are quietly building world-class work. Yet ask most of these companies to show you a polished case study of their best project, and you'll often get a PDF brochure with three blurry photos, a paragraph of jargon, and a logo wall. The gap between the quality of the work and the quality of how it's communicated has never been wider. In a market where India is now seen as one of the strongest growth opportunities in Asia-Pacific for the Pro AV sector, that gap is becoming a real competitive disadvantage.

This isn't a small irritation. It's the single biggest reason why technically excellent AV businesses struggle to win the projects, talent, and reputation they deserve. And the root cause runs deeper than most founders realize. It's not a lack of effort; it's a structural mismatch in how marketing is set up.

The structural problem: A lean team without an AV brain

Most AV consultancies and SIs in India run marketing with a lean team, often a single person or a small group, and that person typically has a conventional marketing background with little understanding of the AV business itself. They know how to schedule a post, design a creative, and track page views. What they don't know is what makes one AV project remarkable and another forgettable, or why a particular installation matters to a hospital administrator versus a hotel GM versus a museum curator.

Meanwhile, the people who do understand this, the founders and business heads, are buried in running the business. They don't have the bandwidth to sit with the marketing team and explain

what's worth promoting, why a particular project was difficult, or what story matters to which audience. So, the marketing team is left to do what they know: plan posts, track views, repeat.

Companies that try to fix this by hiring an external agency often end up just as frustrated, for a slightly different reason. Founders expect the agency to bring direction, independently figure out what's worth promoting, and deliver a "winning formula." But the agency, lacking domain knowledge and direct access to project details, keeps asking the client for direction and content. The client, already stretched thin, has neither the time nor the patience to keep feeding the agency information. The agency measures its own success by output, such as the number of posts and views, while the client measures success by business impact, which the agency was never equipped to deliver in the first place.

This disconnect is so common that it follows a predictable lifecycle: the agency relationship sours, the company hires an internal resource to "fix" it, the internal resource eventually recommends bringing in an agency for execution support, and the cycle repeats. Years pass. Marketing spend adds up. Growth doesn't show up. And nobody can clearly point to what went wrong, because the real issue was never agency quality or internal talent. It was the absence of a system that connects business knowledge to content creation.

The real problem isn't "marketing"; it's the absence of a story

Here's the insight that breaks this cycle: marketing in this industry is not a writing, design, or posting-frequency problem. It is a knowledge-extraction problem. The story of every great project lives in the heads of the project manager, the lead engineer, and the design consultant who lived through the installation. No marketing hire and no external agency can produce compelling content unless someone first pulls that story from the people who actually built the project, and unless the founder or business head invests a small, structured amount of time to make sure the team knows what "good" looks like.

Think about how decisions are actually made in this industry. A facilities head at a corporate campus, a museum director planning an immersive gallery, or a government PWD official issuing a tender doesn't choose an integrator because of a clever tagline. They choose based on evidence: Has this company done something like this before? Did it work? Did they solve a hard problem? Can I trust them with a complex, expensive, highly visible installation? Case studies and project showcases are the only marketing formats that directly answer all four questions. Social posts, brochures, and award submissions are all downstream of having strong project narratives in the first place.

Step one: Know exactly who you're trying to reach

Before any AV consultancy or SI plans content, they need absolute clarity on their target audience, which is broader than most realize. The primary audience is the technology decision-makers inside end-user organizations: facility heads and IT/AV managers at corporate offices, educational institutions, hotels, hospitals, pubs and entertainment venues, museums, airports, and similar establishments. These are the people who will eventually evaluate and shortlist a partner.

But there's a second, equally important audience that many companies ignore entirely: the other stakeholders who influence a project before the end user even gets involved, including project management consultants (PMCs) and architects. These professionals frequently shape the technology specifications, recommend vendors, and gatekeep access to the end client. An SI that is invisible to architects and PMCs is invisible at the exact stage where shortlists are formed. Marketing that only targets end users solves half the problem.

Step two: Choose channels based on where the audience actually is

Once the target audience is defined, the next question is simple: where do these people spend their time looking for information? For most B2B AV decision-makers in India, LinkedIn is the dominant platform. It's where facility heads, IT directors, architects, and PMCs are most active and most likely to engage with project content. X and Instagram play a smaller role, often more useful for visual storytelling around experiential or hospitality projects than for reaching hard infrastructure decision-makers.

Beyond owned social channels, AV consultants and SIs should actively pursue visibility through trade publications and media platforms that already reach these decision-makers regularly with technology updates, exactly the kind of platform this article is being published in. A feature in a respected industry magazine carries third-party credibility that a self-published LinkedIn post never will, and it's earned simply by having a strong project story ready when the opportunity arises.

The mistake to avoid is choosing channels based on what's trendy or what a generic agency recommends by default, rather than on where your specific buyers and influencers are actually looking.

Step three: Get the content right; this is where most companies fail

Channel selection is the easy part. The real challenge, the one that drives founders and marketing teams equally crazy, is deciding what to say. It is not about posting frequency. Posting three times a week with nothing meaningful to show achieves nothing. The hard work is in planning content that demonstrates capability.

The first and most important content category, by a wide margin, is the projects delivered: their scale, technical complexity, and what makes the solution unique. This is precisely where most SIs drop the ball. They deliver genuinely outstanding projects and then fail to document them properly. Often, they don't even get access back into the space once it's handed over, leaving them with whatever images were captured during installation, typically shot on a site engineer's mobile phone, in poor lighting, mid-construction, with cables and ladders in frame. The single most technically impressive project of the year ends up represented by a handful of unusable photographs, simply because nobody planned for documentation in advance.

Building the case study library: A practical framework

This is the single highest-leverage fix available to any AV consultancy or SI, regardless of size or marketing budget. Every company in this industry should be building a case study library, yet very few do so well.

Capture the story while the project is still alive

Documentation cannot be an afterthought. At project kick-off, not at completion, there should be a simple plan: what photos and videos will be taken, at which stages of installation, and who is responsible for collecting them. A professional photographer brought in for even half a day, once the space is complete and styled, makes a disproportionate difference in how a case study performs later.

Identify the business problem before the technical solution

Every strong case study begins with what was at

stake for the client, not with the spec sheet. Not "the client needed a video wall," but "the client's leadership team couldn't run hybrid board meetings without delays and dropped connections, which was costing them credibility with global stakeholders." The technology resolves a tension, and tension is what keeps a reader going.

Document the difficulty, not just the deliverable

Was there a structural constraint that ruled out a standard rigging approach? Was the acoustics consultant battling glass walls and an open-plan layout? Did a heritage buildings' preservation rules limit cabling options? These constraints separate a forgettable case study from a memorable one, and they're exactly the details engineering teams take for granted and omit.

Quantify the outcome wherever possible

"Improved the client experience" means nothing. "Reduced meeting setup time from 12 minutes to under 90 seconds across 40 rooms" means everything. Numbers are quoted, shared, and remembered.

Center the people, not just the project

A quote from the client's facilities head explaining why they chose this integrator, and a quote from the lead engineer about the toughest moment on site, read as independent validation rather than self-promotion, and decision-makers trust them more than any company-authored claim.

Make it a system, not a one-off

A single great case study is a fluke; a pipeline of them is a system. A simple fifteen-minute post-project debrief with the project lead, covering the problem, the constraint, the solution, and the outcome, done consistently across every project, is worth more than any agency retainer because it ensures the raw material for marketing never runs dry. Once this library exists on the website and across social channels, technology end users who do their own research before ever picking up the phone (which is how most evaluation now starts) will find substance instead of a logo wall.

Measuring ROI: Essential Metrics for Founders

One reason this cycle of hiring and firing agencies repeats is that no one agrees in advance on what success looks like. Page views and post counts are activity metrics, not business metrics. They show the agency or team is working, not whether the work is producing results.

AV consultancies and SIs should instead track a small set of indicators tied to business outcomes:

- Inbound inquiries that specifically mention having seen a particular case study or post
- Qualified leads from PMCs, architects, or end users that originate from digital channels rather than solely from personal referrals
- Visibility and engagement among a defined list of target accounts, specifically the corporates, institutions, or PMC firms the company wants to work with, rather than vanity follower counts
- Over a longer horizon, whether the company is invited to submit case studies or be featured by trade publications, without having to ask

These are harder to measure than a view count, but they are the only metrics that actually correlate with the growth founders seek. Agreeing on these metrics upfront with an internal team or an external agency also resolves the earlier-described direction-setting conflict, because both sides now know what they're working toward.

Choosing the right format for different audiences

Not every project needs the same treatment. A government tender win deserves a formal case study with metrics and compliance details, suited for a website portfolio or a trade publication. A striking experiential installation, such as a museum, a digital façade, or a brand activation, deserves visual-first storytelling: short videos, time-lapses of the installation, and high-resolution photography, suited for social media and award submissions. A complex technical integration in a corporate or hospitality setting deserves a narrative case study positioned for industry publications like AV Today, where peers, PMCs, architects, and prospective clients alike read for credibility signals, not just inspiration. The mistake many companies make is using one format for everything, usually the brochure-style PDF, regardless of the story it's telling or who's meant to read it.

The bottom line

India's AV industry has real momentum, driven by corporate hybrid workspace demand, government digital infrastructure spending, education modernization, and ambitious cultural and hospitality projects, all expanding the market. But market growth doesn't automatically translate into growth for any individual company, and a lean marketing team or an unhappy agency relationship won't fix itself with more posting frequency.

The fix isn't a bigger marketing budget or a flashier agency. It's a discipline that starts with the founder: define the target audience properly, including the architects and PMCs who shape shortlists; pick channels based on where that audience actually is; and, most importantly, build a system for capturing and telling project stories before, during, and after every job so that whoever executes the marketing, internal or external, has real material to work with instead of having to invent direction out of thin air. The companies that build this habit will find that their best marketing asset was never a brochure; it was the project they just finished, told properly, to the people who actually decide who gets the next one.

WAVE 2026

Elevates house of worship AV experiences in Bengaluru

Following the resounding success of its inaugural edition on May 1, 2025, AV Today meticulously executed its flagship end-user event, WAVE 2026, on May 1, 2026, in Bengaluru. This esteemed industry gathering was hosted at the distinguished five-star convention facilities of The Leela Bhartiya City. Specifically tailored for independent churches across the region, the event aimed to address the particular challenges faced by the House of Worship (HoW) sector and sought to substantially enhance the overall AV experience within contemporary church environments.

The event drew a highly encouraging response, attracting a diverse audience of technical volunteers, church leaders, and technology enthusiasts. The core objective of WAVE 2026 was to empower and equip the technical personnel who manage sound, acoustics, and lighting systems on a weekly basis. By providing these technicians with formal training and the right technical skills, the event ensures they can deliver a flawless, deeply engaging, and seamless spiritual experience to their respective congregations.

The day commenced with a live performance by a professional worship band. This opening act was deliberately designed to simulate a true, immersive worship experience, demonstrating firsthand the transformative impact of properly configured, professional-grade AV infrastructure. The mesmerising performance captivated the audience, setting a benchmark for what can be achieved through technical excellence.

Following the live demonstration, the daytime itinerary transitioned to intensive, practical training workshops. The initial sessions concentrated significantly on the fundamentals of audio engineering and advanced live audio mixing techniques, which are essential for speech intelligibility and musical dynamics within large sanctuaries. This was succeeded by a comprehensive module dedicated to the principles of contemporary stage lighting and its function in augmenting the visual environment without causing distractions.

A key moment of the afternoon was a seminar on architectural acoustics led by Raja Prabhu, Director of IhD Consultants, a prominent AV consultancy. His presentation provided valuable insights into handling reverberation and enhancing sound distribution in various worship spaces, which strongly engaged the audience.

The evening segment of WAVE 2026 signified a strategic transition, officially inaugurating the participation of senior church pastors alongside their technical teams. This dual attendance enabled essential alignment between pastoral vision and technical implementation. During this session, the event's partners and sponsors showcased a carefully curated portfolio of products and bespoke solutions explicitly designed to meet the structural and budgetary requirements of contemporary houses of worship.

The success of WAVE 2026 was facilitated through the strong backing of leading industry brands. Keinfinity acted as the Principal Sponsor for the event, exhibiting premier technologies appropriate for extensive integration. The event was additionally supported by an elite group of associate sponsors, including Sun Infonet, A&T Video Networks, and Anutone Acoustics. Collectively, these sponsors introduced a comprehensive ecosystem encompassing professional audio systems, specialised acoustic treatments, and high-definition video streaming solutions, which are essential for churches aiming to expand their ministries online. These bespoke solutions received exceptional acclaim from the leaders of the participating ministries.

Feedback from both commercial sponsors and delegates has been overwhelmingly positive. As a pioneering initiative now marking its second consecutive year, WAVE has firmly established itself as a vital fixture in the Indian AV calendar. Church leaders and technicians alike expressed an urgent desire for more frequent iterations of the programme, noting that continuous education is vital to delivering a world-class AV experience that meets the evolving expectations of modern congregations

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AREC LS-410 Media Station

Designed to simplify content creation, lecture capture, and live streaming, the AREC LS-410 Media Station is an all-in-one solution for modern educational and collaborative environments. By combining recording, switching, streaming, and content management into a single platform, the LS-410 enables institutions to deliver engaging hybrid learning experiences with ease.

Supporting up to two 4K UHD channels or four Full HD channels, the system can simultaneously capture multiple content sources, including cameras, presentation PCs, document cameras, and interactive displays. Flexible connectivity options, including HDMI, USB, IP streaming, NDI®|HX, SRT, and Dante Audio, ensure seamless integration with existing AV infrastructure.

The LS-410 is particularly valuable for educational institutions, corporate training centers, and government organizations seeking to enhance remote and hybrid communication. Its built-in recording and streaming capabilities allow users to create, distribute, and archive content efficiently, while metadata and annotation features make recorded sessions easy to organize and retrieve.

Further enhancing usability, the platform supports customized layouts, branding elements, overlays, and graphics, enabling professional-quality content production without dedicated technical expertise. With integrated storage, workflow automation, and open API support, the AREC LS-410 provides a scalable and future-ready solution for content-driven environments.

Contact: www.tispl.tech

Nearity Ceiling Microphone

Designed to meet the demands of modern hybrid workplaces, the Nearity Ceiling Microphone delivers exceptional audio performance while maintaining a clean, professional meeting environment. Its advanced microphone array and intelligent beamforming accurately capture voices throughout the room, ensuring every participant is heard clearly during meetings, presentations, and collaborative sessions.

With extensive room coverage, the system is well suited for boardrooms, training centers, classrooms, auditoriums, and large collaboration spaces. Advanced AI-driven audio processing continuously tracks active speakers and optimizes voice pickup in real time, enabling natural conversations even when presenters move around the room.

To ensure outstanding speech intelligibility, the microphone incorporates a suite of intelligent audio technologies, including AI Noise Suppression, Acoustic Echo Cancellation, Automatic Gain Control, Full-Duplex communication, and Howling Suppression. Together, these features eliminate distractions and deliver clear, natural audio for both local and remote participants.

Its discreet ceiling-mounted design removes tabletop clutter and creates a more organized, professional meeting space. For larger installations, multiple units can be interconnected via Power over Ethernet (PoE), extending coverage while simplifying deployment and cable management.

Supporting local sound reinforcement, remote conferencing, and hybrid collaboration environments, the Nearity Ceiling Microphone offers a scalable, future-ready solution for organizations seeking to enhance communication, improve meeting experiences, and enable seamless collaboration across modern workspaces.

Contact : https://www.nearity.co/

Lumens AI-Powered Collaboration Camera

Designed to enhance communication and engagement in hybrid meeting rooms, classrooms, and presentation spaces, the Lumens collaboration camera delivers intelligent automation and professional-quality video for modern conferencing environments. Built for enterprise, education, government, and corporate applications, it helps create more inclusive and interactive experiences for both in-room and remote participants.

Leveraging advanced artificial intelligence, the camera automatically tracks presenters, follows active speakers, and intelligently frames participants, ensuring every interaction remains clear and engaging. Its autonomous operation reduces the need for manual camera control while enabling seamless collaboration during meetings, lectures, and events.

Professional-grade imaging technology delivers exceptional video quality, while intelligent tracking keeps presenters in focus as they move throughout the room. Dynamic framing further enhances communication by automatically adjusting the field of view to include all participants, creating a more natural and immersive experience for remote audiences.

The solution integrates seamlessly with modern collaboration ecosystems, providing reliable performance and simplified deployment for organisations seeking to improve communication efficiency. Combining intelligent automation, high-quality imaging, and seamless integration, the Lumens collaboration camera offers a future-ready solution for today's connected workspaces and learning environments.

Cybernetyx EyeRIS AIFP

Designed to redefine the modern classroom, the Cybernetyx EyeRIS AIFP (AI Interactive Flat Panel) brings together interactive display technology, artificial intelligence, classroom management tools, and content creation capabilities in a single platform. Built for schools, colleges, and higher education institutions, it streamlines teaching workflows while delivering more engaging, interactive learning experiences.

Powered by Bright AI, the platform supports educators with lesson creation, quiz generation, content explanations, revision notes, and curriculum-aligned teaching resources. Teachers can instantly generate presentations, assessments, and learning activities, reducing preparation time and enabling more effective classroom delivery. The integrated AI assistant also provides real-time explanations, visual learning, and intelligent content recommendations.

A standout feature of the EyeRIS platform is its advanced writing experience, powered by proprietary FeatherTouch technology that delivers exceptional precision, responsiveness, and a natural writing feel. The system also includes built-in voice amplification, helping instructors communicate clearly across large classrooms and lecture halls without additional audio infrastructure.

The solution further enhances classroom intelligence through integrated camera, microphone, and AI-powered monitoring capabilities that support visibility, collaboration, and hybrid learning. Interactive 3D content, simulations, mind-mapping tools, and curriculum-aligned resources help transform complex concepts into immersive learning experiences that improve student engagement and comprehension.

By combining AI-powered teaching assistance, advanced collaboration tools, seamless content access, and intelligent classroom features, the Cybernetyx EyeRIS AIFP provides a comprehensive, future-ready platform for next-generation education.n.

Optimal Audio Column Series

Generation AV is excited to announce the launch of the new Optimal Audio Column Series, featuring the Column 8 and Column 16 loudspeakers, engineered to deliver outstanding speech intelligibility and musical performance in acoustically challenging environments. Equipped with eight or sixteen 2.2-inch full-range drivers, the Column Series provides wide 150° horizontal coverage with controlled vertical directivity, ensuring consistent sound distribution while minimising unwanted reflections from walls and ceilings. With an IP54 weather rating and a complete installation kit included as standard, these slim and elegant loudspeakers are suitable for both indoor and semi-outdoor installations, making them ideal for modern educational campuses.

In educational institutions, the Column Series is perfectly suited to classrooms, lecture halls, auditoriums, libraries, and multipurpose spaces where clear communication is essential. The system integrates seamlessly with the Optimal Audio WebApp, allowing administrators and AV teams to configure, monitor, and control multiple zones via any web browser. Factory-tuned Speech and Music presets, scheduling routines, source selection, and volume control make daily operation simple, delivering a scalable and future-ready audio solution for schools, colleges, and universities.

LOGIC CX Series Interactive Display

The LOGIC CX Series Interactive Display is a next-generation collaboration and learning solution designed to enhance engagement across classrooms, training environments, and enterprise workspaces. Powered by Android 14 and backed by Google EDLA certification, the CX Series provides secure access to the Google ecosystem while delivering seamless performance and an intuitive user experience.

Equipped with a powerful Octa-Core processor, 16GB RAM, and 256GB of storage expandable to 1TB, the display delivers exceptional speed and multitasking capabilities. Its integrated NeoAI suite, including AI Painter, Smart Mapping, Ask AI, AI Topics, and Smart Test Builder, enables educators and professionals to create content, generate assessments, and simplify knowledge sharing.

The CX Series also features a built-in 50MP AI-powered camera with auto-framing and speaker tracking, ensuring immersive hybrid collaboration experiences. An 8-array microphone system, NFC support, dual 20W speakers, and a 20W subwoofer further enhance communication and audio clarity.

Additional features such as wireless screen sharing for up to 30 devices, advanced whiteboarding, cloud integration, multilingual support, NCERT e-book access, and centralised device management make the CX Series a comprehensive solution for modern digital environments.

With the CX Series, LOGIC continues to redefine interactive display technology by combining AI-powered innovation, enterprise-grade performance, and seamless collaboration in a single platform.

A&T Eduslate

Designed to transform modern learning environments, A&T Eduslate is an AI-powered interactive learning solution that combines advanced educational tools, intelligent collaboration features, and engaging content creation capabilities within a single platform. Built for schools, higher education institutions, training centres, and corporate learning environments, Eduslate helps educators deliver more impactful and interactive learning experiences.

At the core of the platform are AI-driven tools that simplify content creation and classroom engagement. Features such as AI-assisted writing, real-time handwriting recognition, and an infinite canvas interactive whiteboard enable educators to create, share, and organize content seamlessly while encouraging greater student participation and collaboration.

To make learning more immersive, Eduslate incorporates interactive teaching resources, including 3D simulations and smart learning tools that help simplify complex concepts and improve comprehension. Built-in assessment capabilities further support active learning by enabling instant feedback, participation tracking, and real-time evaluation of student understanding.

The solution is designed to support both in-person and hybrid learning environments. When paired with AI-powered tracking technology, educators can create professional lecture capture and remote learning experiences, ensuring that both classroom and online participants remain fully engaged throughout the session.

By combining artificial intelligence, interactivity, and intuitive collaboration tools, A&T Eduslate empowers institutions to create future-ready learning spaces that enhance engagement, improve teaching effectiveness, and deliver richer educational experiences.

Nureva Audio System

Designed for modern higher education environments, Nureva audio systems help universities create engaging, inclusive learning experiences across large classrooms, lecture halls, and hybrid learning spaces. Trusted by leading educational institutions, the solution ensures clear communication among instructors, students, and remote participants.

At the core of the system is Nureva's patented Microphone Mist™ technology, which fills a room with thousands of virtual microphones to capture voices naturally and consistently. Whether a student is seated at the front or back of the classroom, every contribution is captured clearly, enabling more effective collaboration and participation.

For larger learning spaces, adaptive voice amplification and dynamic boost technologies help ensure instructors are heard throughout the room, improving comprehension without adding complexity. Accurate sound location data also supports camera integrations, enabling automated camera tracking and switching that enhances the overall hybrid learning experience.

Engineered for simplicity, the system automatically calibrates on startup and eliminates the need for complex DSP programming. Quick deployment, remote management capabilities, and simplified software updates allow IT teams to efficiently manage audio infrastructure across multiple classrooms and campuses.

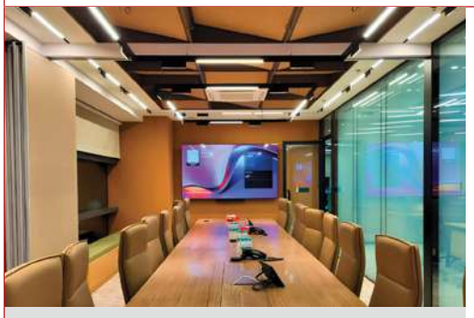
Certified for Microsoft Teams and Zoom, Nureva delivers a reliable, scalable audio solution that supports interactive teaching, seamless collaboration, and consistent performance in today's evolving educational environments.

Contact : https://nvincy.com

Mumbai Managed Workspace

OmneNEST Mumbai Elevates Hybrid Collaboration

Integrated AV ecosystem powers flexible workspaces and enterprise communication



Integrator: AllWave AV Systems Pvt. Ltd.
Category: Co-Working & Managed Workspace
Client: OmneNEST
Contact: www.allwaveav.com

OmneNEST Mumbai partnered with AllWave AV Systems to deploy a comprehensive workplace AV infrastructure to support hybrid collaboration, enterprise video conferencing, executive meetings, and large-scale Town Hall events. The project was delivered within a 30-day timeline and covered multiple collaboration spaces, including meeting rooms, boardrooms, and a dedicated Town Hall facility.

The deployment is built around a standardized Microsoft Teams Rooms environment powered by Yealink collaboration technologies. Intelligent room scheduling, wireless content sharing, AI-enabled conferencing, and centralized room management ensure a seamless, consistent user experience across all spaces while minimizing IT dependency.

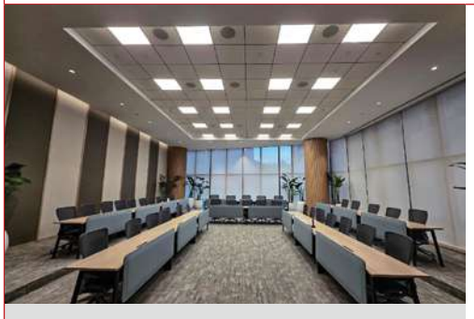
A key highlight of the installation is the divisible boardroom architecture that connects Boardroom 2 and Boardroom 3. Leveraging Yealink AVHub processing, 4K AI-tracking cameras, HDBaseT signal distribution, wireless conferencing microphones, and intelligent display routing, the rooms can operate independently or as a unified executive collaboration space. This flexible design enables efficient room utilization without compromising audio, video, or content-sharing performance.

The Town Hall serves as the flagship presentation environment, featuring a QSC Core 110f DSP platform, professional wireless microphone systems, multi-camera conferencing, distributed loudspeaker coverage, and network-managed AV infrastructure. Advanced audio processing and echo cancellation deliver clear communication for both in-room and remote participants.

Mumbai Corporate

Training Experience with Seamless Audio Integration

Minimalist design delivers crystal-clear communication



Integrator: Xpan Solutions Private Limited
Category: Corporate
Client: Ajanta Pharma
Contact: alphatec.co.in

Ajanta Pharma has upgraded its training facility with a discreet yet highly effective audio solution that combines superior speech intelligibility with a clean, unobtrusive design. Implemented by Xpan Solutions Private Limited, the installation was designed to meet the pharmaceutical company's requirement for a professional training environment that delivers exceptional audio clarity without compromising aesthetics.

The project called for an audio system that minimized tabletop clutter while ensuring clear, balanced sound for presentations, discussions, and collaborative training sessions. To achieve these objectives, Xpan Solutions selected Audio-Technica ES947C/FM3 Flush Mount Boundary Microphones, which integrate directly into the table surface and eliminate the need for bulky tabletop hardware.

The flush-mounted microphone system blends seamlessly into the room's interior design, maintaining a modern, professional appearance while delivering consistent voice pickup across the training space. Built-in mute/unmute functionality further enhances usability, allowing participants to operate the system effortlessly without technical expertise.

A key aspect of the installation was its focus on simplicity and functionality. By prioritizing a compact form factor without sacrificing performance, the solution delivers reliable audio reinforcement while remaining virtually invisible within the environment. The result is a streamlined communication system that supports effective training sessions and enhances the overall user experience.

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Quest for Quiet

Worship Acoustics


RC Church, Tiruppur [Tamil Nadu]


Notre Dame School Chapel, Mysuru [Karnataka]

Potter's House Church, Pimpri-Chinchwad [Maharashtra]

Church, Gangtok [Sikkim]

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Mumbai Hospitality

Cricket Club of India Elevates Sports Bar Experience

Premium sound meets heritage hospitality

Integrator: AudioTechnik India
Category: Clubs & Bar
Client: Cricket Club of India
Contact: https://audiotechnik.in

Located within CCI's (Cricket Club of India) heritage clubhouse, the new sports bar was designed as a modern social destination where members can gather to watch live sporting events, socialize, and relax. The audio system was engineered to ensure clear speech intelligibility for commentary and broadcasts while keeping background music and event audio engaging without overwhelming conversation.

The installation centers on six d&b 8S loudspeakers, chosen for their ability to deliver balanced, uniform coverage throughout the venue. Complementing the system are two d&b 12S subwoofers, which provide impactful low-frequency reinforcement that enhances the viewing experience during sporting events and entertainment programming.

Two d&b 5D amplifiers power the system, ensuring reliable performance and simple day-to-day operation. The solution was carefully engineered to provide consistent sound levels throughout the space, creating an immersive yet comfortable environment suitable for daily club activities.

Founded in 1933 and home to the iconic Brabourne Stadium, the Cricket Club of India continues to blend tradition with modern member amenities. The new sports bar audio installation reflects this vision, combining contemporary technology with the club's heritage setting to deliver an elevated hospitality experience for members and guests alike.

Gandhinagar, Gujarat Museum

Museum Blends Heritage with Immersive Technology

Advanced AV integration transforms storytelling across galleries and exhibition spaces

Consultant: Clarity Consulting
Integrator: Innovative Systems and Solutions Pvt. Ltd. (ISSPL)
Category: Museum
Client: Samrat Samprati Sangrahalaya (Samrat Samprati Museum)
Contact: www.isspl.in

The Samrat Samprati Museum in Koba, Gandhinagar, has been designed as a culturally immersive destination where history, spirituality, and storytelling converge through advanced AV technology. Spanning three floors, the museum integrates sophisticated AV solutions across thematic galleries, worship spaces, an auditorium, and a multipurpose hall, creating a seamless and engaging visitor experience.

The audio infrastructure has been carefully engineered to deliver immersive, localised sound throughout the facility. Distributed Tannoy speaker systems provide consistent coverage across galleries, while Ultrasonic Acouspade directional audio technology enables focused storytelling without sound spill between adjacent exhibits. The auditorium features high-performance VX Series loudspeakers and subwoofers, delivering impactful sound reproduction for presentations and immersive experiences. A centralised QSC Q-SYS platform forms the backbone of the audio network, supported by Dante-based distribution and Lab Gruppen amplification.

Visual storytelling is powered by Panasonic 4K laser projectors deployed across multiple galleries, projecting vibrant content onto custom Screen Goo-treated surfaces that function as large-format visual canvases. Dataton Watchout media servers synchronise content across displays, while BrightSign 4K media players ensure reliable playback. Kramer HDBaseT infrastructure provides robust signal distribution throughout the museum.

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Pune Corporate Workplace

Syngenta Reimagines Workplace Collaboration

Intelligent AV ecosystem delivers seamless communication across enterprise spaces

Integrator: AV Dynamic
Category: Corporate Workplace
Client: Syngenta
Contact: www.avdynamic.co.in

Syngenta has transformed its workplace collaboration environment with the deployment of a fully integrated AV ecosystem designed to enhance meetings, training sessions, executive communication, and customer engagement. Delivered within an ambitious six-week implementation schedule, the project combines intelligent automation, centralized management, and enterprise-grade collaboration technologies to create a seamless user experience across multiple spaces.

The solution features native Zoom Rooms powered by Logitech Rally conferencing systems and Samsung professional displays, enabling one-touch meeting initiation, simplified room operation, and consistent collaboration experiences throughout the facility. Advanced training and executive spaces have been equipped with Crestron One Beyond intelligent cameras, Automate VX multi-camera switching, Sennheiser ceiling microphones, and Xilica DSP platforms, providing AI-driven presenter tracking, voice-based camera automation, and flexible room configurations.

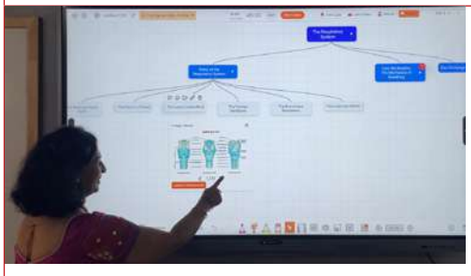
A Crestron NVX AV-over-IP backbone forms the foundation of the deployment, delivering near-zero latency performance, reduced cabling requirements, and a scalable infrastructure ready for future expansion. The architecture ensures reliable content distribution while simplifying system management and maintenance.

To support customer engagement and presentations, Syngenta also deployed a high-resolution 1.2 mm pixel pitch All-in-One LED display, creating an immersive visual environment for demonstrations and corporate communications. A Neat Board mounted on a mobile collaboration cart further enhances flexibility by enabling interactive meetings across multiple locations.

Bengaluru Education

International School Adopts AI Learning

EyeRIS AI and BrightClass create intelligent learning environments.



Integrator: Cybernetyx
Category: Education
Client: Harvest International School
Contact: : www.cybernetyx.com

Harvest International School, one of Bengaluru's leading educational institutions, has transformed its learning ecosystem by deploying Cybernetyx's EyeRIS AI interactive displays and the BrightClass AI platform. Serving over 2,000 students across multiple campuses, the school sought a solution that could move beyond traditional digital classrooms and create a truly AI-enabled learning environment.

After an extensive evaluation of classroom technology providers, Harvest identified key gaps in conventional solutions, including limited intelligence, fragmented content management, a lack of student engagement tools, and minimal post-installation innovation. Cybernetyx addressed these challenges with an integrated ecosystem combining AI-driven teaching tools, centralised curriculum management, and collaborative learning capabilities.

Every classroom was equipped with EyeRIS AI boards that enable on-demand lesson creation, AI-generated quizzes, interactive simulations, and real-time student collaboration. The BrightClass platform further empowers educators by centralising content creation and distribution, allowing curriculum teams to publish learning resources instantly across all school branches.

The impact has been significant. Teachers reported a 75% reduction in lesson preparation time, while internal assessments recorded a 32% improvement in teaching effectiveness. Parent satisfaction also increased by 65%, reflecting stronger student engagement and improved learning outcomes.

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The Q-SYS RoomSuite Collaboration Bar is a Windows-based device for Microsoft Teams® Rooms, designed for simple configuration and deployment across common, repeatable collaboration spaces. This all-in-one solution ships with a dedicated touchscreen for intuitive meeting and device control, and supports up to four Q-SYS RoomSuite Table Microphone accessories. Together with recent expansion from earlier this year, the Q-SYS Full Stack AV Platform extends across the entire modern high-performance workplace.

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