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**STEEL
STRUCTURES
& METAL
BUILDINGS**

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nerve of steel construction...

THE 50-YEAR BUILDING IN A 5-YEAR WORLD



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Conferences



Trade
Exhibitions



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& Concerts



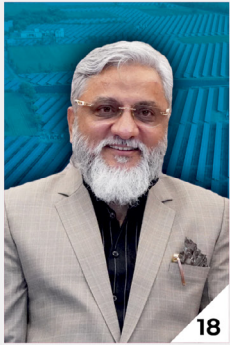
Corporate Events
& Product Launches



Cultural & Community
Events

Can India's New Convention Centres Keep Pace with Changing Technologies, Event Formats & User Expectations?

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The 50-Year Building in a 5-Year World: **Designing Convention Centres for Future We Cannot Yet Predict**



Courtesy: INI Design Studio

THE AGE OF UNCERTAINTY

For much of the last century, designing a convention centre was a predictable exercise. Architects estimated visitor numbers, planned exhibition halls, conference rooms and circulation spaces, while engineers ensured structural safety for decades. Once completed, these buildings largely continued serving the same purpose, hosting exhibitions, conferences, trade fairs and occasional cultural events. Their form rarely changed because the events they hosted rarely changed.

That certainty has disappeared. Over the past decade, the events industry has transformed dramatically. Conferences now extend far beyond the auditorium, with keynote sessions streamed globally. Exhibition booths have evolved into immersive experiences powered by augmented reality and artificial intelligence. E-sports tournaments attract audiences rivaling traditional sporting events, corporate launches resemble theatrical productions, and international summits demand broadcast-grade infrastructure. Modern venues must support networking, collaboration and digital engagement alongside formal presentations.

A convention centre designed today is expected to remain operational for at least fifty years. During that lifespan, technologies will become obsolete, regulations will tighten, business models will evolve and entirely new forms of gathering will emerge. Few of today's dominant event formats existed two decades ago, making it equally unlikely that designers can accurately predict the needs of 2035, let alone 2050.

This presents one of architecture and engineering's greatest challenges. How do you design a building that outlives multiple generations of technology? How do you create spaces for activities yet to be imagined? Most importantly, how do you ensure that a nationally significant investment remains commercially, operationally and socially relevant long after its inauguration?

India is now witnessing an unprecedented expansion of convention and exhibition infrastructure. Landmark projects like Bharat Mandapam in New Delhi and Yashobhoomi at Dwarka reflect the

nation's ambition to compete with leading global MICE destinations. Simultaneously, state governments and private developers are building convention centres and integrated event districts across emerging cities, recognising that these facilities generate far more than tourism. They attract investment, strengthen business ecosystems, enhance city branding and create platforms for innovation, knowledge exchange and cultural engagement.

Yet the success of these investments will not be judged by architectural grandeur or inaugural celebrations. It will be measured decades from now. Perhaps that is the defining challenge of our time. For generations, architects and engineers measured success by how long a building could stand. Tomorrow, they may be judged by something far more demanding, whether that building can continue changing long after construction is complete.

"The challenge is no longer designing buildings that last. It is designing buildings that continue to change."

WHY CONVENTION CENTRES MATTER MORE THAN EVER

Convention centres have traditionally been viewed as destinations, places where exhibitions are organised, conferences convened and cultural programmes hosted. Their success was often measured in square metres of exhibition space, seating capacity or the number of events they accommodated each year. While these metrics remain relevant, they no longer capture the true role these facilities play within modern cities.

Across the world, convention centres are increasingly being recognised as economic infrastructure. Like airports, metro systems or business districts, they generate value that extends well beyond their physical boundaries. A major international conference fills hotels, restaurants and retail outlets. Trade exhibitions connect manufacturers with buyers, investors and technology providers. Industry summits influence policy discussions, stimulate innovation and strengthen business ecosystems. Increasingly, convention centres are becoming catalysts for urban regeneration, tourism, investment and knowledge exchange.

India's recent investments reflect this changing outlook. Projects such as Bharat Mandapam and Yashobhoomi are not simply larger exhibition venues; they represent an ambition to position Indian cities within the global Meetings, Incentives, Conferences and Exhibitions (MICE) ecosystem. Similar aspirations are emerging across several states, where convention infrastructure is being planned alongside airports, commercial districts, hospitality developments and transport corridors. The objective is no longer merely to host events, but to strengthen a city's economic competitiveness.

Yet as convention centres assume more strategic roles, expectations surrounding them have changed just as dramatically.

For decades, organisers selected venues primarily on the basis of capacity and location. Today, the evaluation begins much earlier and extends much further. Digital connectivity, seamless logistics, accessibility, visitor comfort, operational efficiency and the overall





"A venue should be able to host trade shows, conferences, consumer exhibitions, corporate events and entertainment events with equal ease."

Srikanth T.G.

event experience have become equally influential in determining a venue's success. In many cases, the building itself has become an active participant in the event rather than simply the backdrop against which it unfolds.

Few organisations witness this transformation as closely as venue operators. According to **Srikanth T.G., Business Head, Hyderabad International Trade Expositions Limited (HITEX)**, attendee expectations have evolved well beyond the traditional requirements of exhibition halls and conference rooms. Visitors increasingly expect seamless registration, uninterrupted digital connectivity, intuitive circulation, dedicated networking spaces, efficient food courts and an experience that remains consistent from arrival to departure. Consequently, he observes, convention centres are now evaluated not merely by the scale of their infrastructure but by the quality of the experience they enable.

That shift has significant implications for how these facilities are planned and operated. A modern convention centre may host an international trade exhibition one week, a technology summit the next, followed by a consumer expo, a cultural festival or a large-scale corporate convention. Increasingly, multiple events with very different operational requirements may take place simultaneously within the same campus. The challenge is no longer accommodating large crowds; it is accommodating vastly different patterns of use without compromising efficiency or visitor experience.

For operators, this makes flexibility less of an architectural aspiration and more of a commercial necessity. "A venue

should be able to host trade shows, conferences, consumer exhibitions, corporate events and entertainment events with equal ease," says **Srikanth**. Event formats, he believes, will continue to evolve, and venues capable of adapting quickly will consistently achieve higher utilisation levels and remain commercially relevant over the long term.

This changing operational reality is also exposing the limitations of many conventional facilities. Venues originally designed around traditional exhibitions often struggle to accommodate hybrid conferences, live broadcasting, immersive installations and multiple concurrent activities. Constraints in power distribution, digital infrastructure, logistics access, visitor circulation and support amenities frequently become barriers long before the building itself reaches the end of its structural life.

The implication is profound. Obsolescence is no longer determined solely by ageing concrete, steel or building services. Increasingly, it is determined by an inability to support changing ways of gathering, communicating and collaborating.

That observation fundamentally changes how convention centres should be evaluated. Their long-term success may depend less on how efficiently they perform their original function than on how gracefully they accommodate functions their designers never anticipated.

In many ways, this is the defining paradox of contemporary convention infrastructure. These are among the longest-lasting public buildings we construct, yet they operate within one of the fastest-changing industries in the world. Every investment made today must therefore answer a question that extends far beyond opening day:

Can a building designed for today's events remain relevant to tomorrow's economy?

For architects, answering that question begins not with predicting the future, but with accepting that it cannot be predicted at all.

"A convention centre is no longer just an event venue—it has become economic infrastructure."

DESIGNING FOR THE UNKNOWN

If convention centres have become among the most dynamic public buildings of our time, they also present architects with one of the profession's most difficult questions.

How do you design for a future that refuses to be predicted?

For decades, architectural planning was guided by relatively stable assumptions. Designers could estimate occupancy, define circulation patterns, allocate service areas and determine structural requirements with reasonable confidence that the building would continue serving similar functions throughout its lifetime. While technologies evolved, the essential purpose of convention centres remained largely unchanged.

That certainty no longer exists. Today's convention centre may simultaneously accommodate a global technology summit, a cultural festival, a healthcare exhibition, an international buyers' meet, an immersive digital experience and a live-streamed product launch, all within the same week. Tomorrow, entirely new forms of public gathering may emerge, driven by technologies, business models and social behaviours that remain difficult to imagine today.

The implication is profound. Future-ready architecture is no longer about predicting tomorrow's requirements. It is about ensuring that tomorrow's requirements, whatever they may be, can be accommodated with minimum disruption.

Increasingly, architects are responding by shifting their focus from designing fixed-purpose buildings to creating adaptable spatial frameworks capable of continuous evolution. According to **Saumil Mevada, Director – Urban Planning/Architecture, INI Design Studio**, the objective is no longer to create a perfect solution for today's needs, but to establish a timeless framework that can accommodate changing technologies, operational requirements and user expectations throughout the building's life. "The idea is not to create a perfect solution," he says, "but to create a campus that can adapt."

That subtle distinction represents one of the most significant philosophical shifts currently taking place in contemporary architecture. Rather than treating flexibility as an optional

feature, it is becoming the organising principle around which the entire project is conceived.

This philosophy extends well beyond the exhibition hall itself. Long-span column-free spaces, generous floor-to-floor heights, adaptable service corridors, accessible MEP zones, modular planning grids and digitally enabled infrastructure are increasingly viewed not as premium additions but as fundamental planning decisions. Collectively, they create buildings capable of accommodating future interventions without extensive demolition or operational disruption.

Yet adaptability alone does not define enduring architecture. A building may successfully accommodate multiple event formats over several decades and still fail to establish a meaningful relationship with the people and city it serves.

For **V.S. Vigneswar, Principal Architect and Founder, Architecture Plus Value**, this human dimension is equally important. He argues that the future convention centre cannot simply be evaluated by its capacity or operational efficiency. It must also create memorable experiences, strengthen cultural identity and remain emotionally relevant across generations. "A building that survives time," he observes, "is not only one that adapts physically, but one that remains emotionally relevant."

This perspective expands the conversation beyond engineering and operations. Convention centres are, after all, civic spaces. They host celebrations, exhibitions, knowledge exchanges, cultural performances and public gatherings that become part of a city's collective memory. Their long-term value therefore depends not only on how efficiently they function but also on how meaningfully they contribute to public life.

Increasingly, architects are recognising that these two ambitions, flexibility and identity, need not compete with one another. In fact, the most successful projects demonstrate that they are mutually reinforcing.

Saumil believes flexibility should never be treated as a compromise to architectural ambition. Instead, it must be embedded into the design

concept from the very beginning. An iconic convention centre, he argues, is not necessarily one defined by an extraordinary form, but one capable of accommodating changing uses with equal elegance over many decades.

His work on projects such as the **BAPS Sabhamandap** in Vadodra and the proposed **Sabarmati Convention, Business & Cultural District** in Ahmedabad reflects this philosophy by integrating large column-free gathering spaces with a hierarchy of multipurpose facilities that support different scales of activity throughout the year. Rather than functioning as isolated buildings, these developments are envisioned as evolving urban destinations where convention, culture, hospitality and public life coexist within a larger ecosystem.

Vigneswar approaches the same challenge through a different lens. Drawing from projects such as the **GKS Convention Centre** and the proposed **Ambur Convention Centre**, he argues that future-readiness is achieved by balancing operational adaptability with architectural character. Flexible planning, multiple event configurations, integrated hospitality functions and efficient circulation are undoubtedly essential, but they should never come at the expense of identity. "The building must allow change," he says, "but it must also hold character." That balance may ultimately distinguish timeless architecture from merely functional infrastructure.

Interestingly, both architects arrive at remarkably similar conclusions despite approaching the problem from different directions. For **Saumil**, the future convention centre evolves from an iconic object into an integrated civic ecosystem. "The future icon," he suggests, "is not an object in the city, but an ecosystem that continuously supports business, culture and public life." For **Vigneswar**, the convention centre evolves from a standalone venue into a place that people continue to value because it remains connected to its cultural context and everyday experience.

Different philosophies. The same destination. Both recognise that future-proofing depends on creating places that remain useful, meaningful and adaptable long after today's trends have faded. Achieving that ambition



"Future adaptability should be engineered into the primary structural system, not added later."

Jayshil Patel

ultimately depends on something architects cannot accomplish alone.

Spatial flexibility must be supported by structural flexibility. Designing adaptable architecture therefore leads inevitably to an equally important question:

What kind of structural systems can continue evolving for the next fifty or even one hundred years?

If architects imagine flexibility, engineers determine how much of that flexibility survives over the next fifty years.

"Future-ready architecture is not about predicting tomorrow. It is about accommodating whatever tomorrow brings."

ENGINEERING CHANGE

Architecture may define how a convention centre is experienced, but it is the structural system that ultimately determines how far that experience can evolve over time.

An architect may envision flexible halls, divisible event spaces and adaptable public concourses, yet none of these ambitions can be realised unless the building's structural framework allows change without compromising safety, performance or operational continuity.

This represents one of the most significant shifts taking place in structural engineering today. Traditionally, structural systems were designed to safely resist anticipated loads throughout the life of the building. Today's convention centres demand something considerably more ambitious. Engineers are increasingly expected to design structures capable of accommodating loads, technologies, occupancies and operational requirements that cannot



"The idea is not to create a perfect solution, but to create a campus that can adapt."

Saumil Mevada

yet be fully defined. In other words, the challenge is no longer simply to design for strength. It is to design for uncertainty.

According to **Jayshil Patel, Director, Collage Design**, future adaptability should be engineered into the primary structural system rather than introduced later through expensive modifications. The fundamental decisions made during concept design, from structural grids and expansion joints to foundation planning and reserve capacity, often determine whether a building can evolve gracefully or becomes constrained by its own structure.

For projects such as the **Mawkhanu Football Stadium** in Shillong, this philosophy translated into modular structural grids, strategically located expansion joints and reserve capacity within key foundations and primary structural members. These provisions were not intended to accommodate today's requirements alone, but to enable future seating expansion, hospitality upgrades, broadcasting systems and evolving technologies with minimal disruption.

The principle extends equally to convention centres. Large column-free

halls remain essential, not because they create dramatic architectural spaces, but because they preserve operational freedom. By eliminating internal structural obstructions, engineers enable exhibition layouts, seating configurations and event infrastructure to be reorganised repeatedly throughout the building's life without compromising its structural integrity.

Yet flexibility should never be confused with overdesign. One of the most persistent misconceptions surrounding future-proofing is that adaptability inevitably demands significantly larger structural systems and substantially higher initial investment.

Structural engineers increasingly reject that assumption. Instead, they advocate selective foresight. Reserve capacity, for example, does not imply oversizing every structural member. Rather, it involves identifying the components most likely to experience future interventions that include roof systems, foundations, primary framing or equipment support zones, and incorporating carefully calculated allowances that enable future expansion without excessive material consumption.

As **Jayshil** explains, the objective is to make targeted investments where future flexibility is most valuable, balancing present-day performance with long-term adaptability through lifecycle thinking rather than simply increasing construction cost.

That philosophy finds strong support within the structural steel industry. According to **K. Desababu, Vice President, Bheemaa Infra Solutions Pvt. Ltd.**, steel's greatest contribution to convention infrastructure lies not merely in achieving impressive spans,

but in enabling flexibility at scale. Long-span trusses, tubular structural systems and space frames routinely create clear spans exceeding 60 to 100 metres, allowing vast uninterrupted floor plates capable of supporting changing exhibition layouts, conferences, entertainment events and technology-driven experiences over several decades.

More importantly, these systems can be engineered with planned connection points, integrated service interfaces and reserve loading capacity for suspended lighting systems, digital broadcasting equipment, immersive installations and future building services that may not yet exist. "Future-proofing does not require overbuilding," **Desababu** observes. Instead, he argues, it requires embedding scalability within the building's DNA through adaptable structural grids, expansion corridors, service infrastructure and carefully planned connection details.

The distinction is significant. True scalability is not measured by how much additional construction is completed on opening day. It is measured by how efficiently future expansion can occur when changing operational requirements demand it.

This philosophy has broader implications for project planning as well. Increasingly, developers are recognising that convention centres rarely reach their final form during the first phase of construction. Exhibition halls, hospitality facilities, parking structures and supporting infrastructure often evolve alongside market demand. Modular structural systems therefore enable expansion to become an engineering exercise rather than a demolition exercise, preserving both investment value and operational continuity.

Yet structural adaptability alone cannot guarantee long-term performance. Buildings must also withstand a future likely to be characterised by greater environmental uncertainty, changing regulations and increasing expectations of resilience.

According to **Mangesh Chorage, Principal Engineer, Shanghvi & Associates Consultants Pvt. Ltd. (SACPL)**, future-proofing extends well beyond accommodating changing event formats. Convention centres



completed today may remain operational for fifty to one hundred years, during which climate conditions, structural design codes, occupancy patterns and technology requirements are almost certain to evolve.

This demands a broader engineering perspective. Future structures must accommodate not only larger spans and heavier equipment, but also more intense rainfall, higher wind speeds, increased flood risk, seismic events, changing temperature profiles and progressively stringent sustainability requirements.

Equally important is the ability to recover quickly following extreme events. Convention centres increasingly function as critical public infrastructure. Their value therefore depends not only on preventing structural failure, but also on minimising damage, reducing downtime and enabling rapid reoccupation following earthquakes, storms or other disruptive events.

Resilience, in this context, becomes an operational objective as much as a structural one. **Mangesh** also highlights another emerging dimension of future-ready engineering: digital intelligence. The next generation of convention centres is expected to integrate digital twins, structural health monitoring and predictive maintenance systems capable of continuously assessing asset performance throughout the building's lifecycle. These technologies will allow owners to manage infrastructure proactively, extending service life while improving safety and operational efficiency.

Taken together, these perspectives reveal a profound transformation within structural engineering. The profession is no longer focused solely on designing buildings that satisfy today's codes and loading conditions. Instead, engineers are designing frameworks capable of accommodating tomorrow's uncertainties, whether they emerge through technology, climate, regulation or changing patterns of human activity.

The Future is Designed Before It Exists

The most valuable decisions in a convention centre are the ones that enable changes decades later.

Perhaps the most remarkable aspect of this evolution is that structural capability itself is no longer industry's greatest challenge. Today's engineering tools, fabrication technologies and analytical software routinely make extraordinary spans possible.

The greater challenge lies elsewhere. It lies in ensuring that architecture, structure, building services, fabrication, construction and operations are conceived not as separate disciplines, but as parts of a single adaptable system. Only then can a convention centre continue evolving long after construction has been completed.

Yet even the most adaptable structure can lose much of its future potential if critical design decisions are compromised during project execution. Because future-proofing, as many projects eventually discover, is rarely lost on the drawing board. It is far more often lost in the boardroom.

"The challenge is no longer designing for strength. It is designing for uncertainty."

THE COST OF SHORT-TERM THINKING

The greatest threat to a future-ready convention centre is not inadequate engineering. Nor is it unimaginative architecture. More often than the industry would like to admit, it is the project delivery process itself.

By the time a convention centre moves from concept design to construction, it passes through countless decisions involving budgets, procurement strategies, value engineering exercises, contractor appointments and changing stakeholder priorities. Each decision may appear rational in isolation. Collectively, however, they often determine whether the original vision survives intact or gradually gives way to short-term compromises.

Ironically, many of the features that make a convention centre adaptable over the next fifty years are also among the easiest to eliminate during design optimisation.

- A slightly deeper service zone.
- A marginally higher floor-to-floor height.
- Reserve structural capacity.
- Future expansion provisions.
- Additional riser space.
- Oversized electrical pathways.



"A building that survives time is not only one that adapts physically, but one that remains emotionally relevant."

V.S. Vigneswar

On paper, each appears to be an unnecessary expense. In reality, they are investments in possibilities that may not be realised until years after the building opens. That presents an unusual challenge. Unlike an elegant façade or a dramatic entrance lobby, future adaptability is almost invisible on inauguration day. It cannot be photographed. It cannot be celebrated during the ribbon-cutting ceremony. Its value often becomes apparent only when the building is asked to do something its designers never originally anticipated.

Few professionals understand this better than project management consultants. Having worked across complex developments involving multiple stakeholders, procurement routes and delivery models, they occupy a unique position between design intent and construction reality.

According to **Sanjay S. Soni, Senior Director (Project & Development Services), Cushman & Wakefield India**, owners today are considerably more receptive to future-proofing than they were even a decade ago. Landmark developments such as **Bharat Mandapam** and **Yashobhoomi** have demonstrated what globally competitive convention infrastructure can achieve, encouraging both public and private sector clients to think beyond immediate project delivery.

Yet enthusiasm alone does not guarantee better outcomes. The challenge, **Sanjay** explains, lies in how future-proofing is presented. Projects are rarely approved because they promise flexibility fifty years from now. They gain support when they clearly demonstrate reduced operational risk, lower lifecycle expenditure and stronger commercial competitiveness.



"Future-proofing is best understood as avoided retrofit cost rather than upfront idealism."

Sanjay Soni

"Future-proofing," he observes, "is best understood as avoided retrofit cost rather than upfront idealism."

That single shift in perspective changes the entire conversation. Rather than asking, "How much more will this cost today?" owners begin asking, "How much will this save twenty years from now?"

The distinction may appear subtle. Its consequences are profound. Across large infrastructure projects, one recurring pattern continues to emerge. Capital expenditure and operational expenditure rarely belong to the same decision-maker.

The authority funding construction is often different from the organisation eventually operating the facility. Construction budgets are scrutinised intensely. Lifecycle performance receives far less attention. As a result, decisions that improve operational efficiency over decades are frequently sacrificed to reduce costs during construction. It is not a failure of engineering. It is a failure of alignment.

Lifecycle thinking, **Sanjay** argues, must therefore begin at the earliest stages of project planning, not after construction budgets have already been established. International convention developments increasingly evaluate capital cost alongside lifecycle cost from the outset, recognising that structural grids, service distribution, floor heights and spatial flexibility should be assessed not only for today's

Steel Enables Evolution

Long-span steel systems create adaptable spaces that can evolve without structural intervention.

requirements but for the future options they preserve.

Perhaps nowhere is this conflict more visible than during value engineering. Conducted responsibly, value engineering improves efficiency without compromising performance. Conducted narrowly, it can quietly remove precisely those features that make buildings adaptable. Clear spans become smaller. Service capacity disappears. Future risers are eliminated. Structural provisions for expansion are postponed indefinitely. Floor-to-floor heights are reduced. None of these changes appears dramatic in isolation. Collectively, they reshape the building's future.

As **Sanjay** remarks with remarkable clarity, **"Nobody photographs spare capacity for the inauguration."** Yet spare capacity often determines whether a convention centre continues evolving gracefully over decades or requires expensive structural intervention after only a few years of operation. The irony is difficult to ignore. The industry's greatest investments in future-proofing are often those least appreciated at project completion.

Someone within the project team must remain responsible for ensuring that long-term flexibility survives every design review, every tender negotiation and every value engineering exercise. Otherwise, the future is quietly negotiated away.

Looking ahead, **Sanjay** believes convention centres will increasingly be judged not by whether they were delivered on schedule, but by how effectively they continue responding to change five, ten or even twenty years after completion. "A convention centre delivered on time and within budget proves that the project team executed the brief successfully," he says. "A future-ready convention centre proves that the brief itself was written with the next thirty years in mind."

Perhaps that is the most important lesson of all. Buildings rarely become obsolete because engineers failed. They become obsolete because decisions made during delivery gradually eroded the possibilities carefully embedded during design. Future-proofing, therefore, is not a feature. It is a commitment that must survive every meeting, every drawing

revision, every procurement package and every commercial negotiation. Only then can architecture and engineering fulfil the ambitions with which they began.

"Nobody photographs spare capacity during inauguration—but spare capacity determines a building's future."

BEYOND BUILDINGS

Perhaps the most significant transformation taking place in convention centre design has little to do with architecture, engineering or technology in isolation. It is a transformation of purpose. For decades, convention centres were conceived as destinations that hosted events. Their success was measured by attendance figures, exhibition area, booking calendars and occupancy rates. Once an event concluded, the building returned to waiting for the next one.

Increasingly, however, that definition is becoming inadequate. The convention centre is no longer simply a venue. It is becoming a platform, one that continuously supports business, innovation, culture and urban life, whether or not a major exhibition is taking place. This subtle shift changes everything. It changes how architects approach planning. It changes how engineers think about adaptability. It changes how operators evaluate utilisation. And it changes how cities measure return on investment.

The world's most successful convention districts are no longer isolated exhibition halls surrounded by parking lots. They are integrated urban ecosystems where hospitality, retail, public spaces, transport, business districts and cultural institutions function together to create activity throughout the year.

Indian cities are beginning to embrace the same philosophy. Rather than developing standalone event facilities, newer convention projects are increasingly being integrated with airports, metro networks, hotels, commercial districts and mixed-use developments. The convention centre becomes the anchor around which a larger economic ecosystem develops.

For **Srikanth T.G.**, the future-ready convention centre succeeds not



"Future-proofing does not require overbuilding. It requires embedding scalability into the building's DNA."

K. Desababu

because it hosts more events, but because it accommodates more possibilities. Hybrid conferences, consumer exhibitions, business summits, entertainment events, networking forums and digital broadcasts increasingly coexist within the same facility. The building must therefore operate less like a fixed venue and more like a flexible operating system capable of supporting constantly evolving user requirements.

As **Srikanth** points out, visitors increasingly judge convention centres not simply by the events they attend, but by the quality of the entire journey from arrival and registration to movement, interaction and departure. That observation finds a strong parallel in the architectural thinking of **V.S. Vigneswar**. He argues that convention centres should be understood not as enclosed event halls, but as civic environments capable of supporting multiple scales of gathering and different forms of public life. "The building must allow change," he says, "but it must also hold character."

The statement captures an important reality. Adaptability alone does not create successful places. People return to places that are memorable. That balance between flexibility and identity may ultimately determine whether convention centres continue serving their communities long after the novelty of their architecture has faded.

The same principle extends into engineering. Structural adaptability, modular expansion and resilient building systems are valuable not simply because they make future alterations easier. They are valuable because they allow convention centres to continue supporting

changing economic activity without repeated cycles of demolition and reconstruction.

As **K. Desababu** observes, future-ready infrastructure is increasingly conceived as one coordinated system where structure, services, technology and operations evolve together. Similarly, **Mangesh Chorage** emphasises that the most successful convention centres of 2050 will be those capable of accommodating uses that designers cannot fully predict today while maintaining safety, resilience and operational continuity throughout their service life.

Taken together, these perspectives suggest that the conversation around convention centres has quietly outgrown architecture alone. It now encompasses urban planning, economic development, technology, mobility, hospitality, sustainability, and public life. And perhaps that is their greatest contribution.

Convention centres no longer exist merely to host events. They increasingly exist to connect people – businesses with investors, researchers with industry, start-ups with markets, governments with innovators, communities with culture, and ideas with opportunity. Every exhibition, every conference, every performance, every gathering becomes another layer within a much larger urban ecosystem. In that sense, the convention centre of the future is less a destination than a catalyst.

Its success will not be measured solely by the number of events listed on its annual calendar, but by the conversations it enables, the collaborations it inspires and the economic momentum it creates far

beyond its own walls. Perhaps that is the true evolution of this building typology. It is no longer designed simply to accommodate people. It is designed to accelerate possibilities which naturally raises one final question. If adaptability, resilience, technology and urban integration are redefining convention centres today... **what might the truly future-proof convention centre of 2050 look like?**

"Convention centres are evolving from destinations into urban ecosystems."

THE CONVENTION CENTRE OF 2050

Every generation believes it is building for the future. History suggests otherwise. Railway stations built for steam locomotives were later adapted for electric trains. Industrial warehouses became technology campuses.

Textile mills evolved into cultural districts. Airports expanded far beyond the assumptions of their original master plans. Buildings that were once considered complete eventually became works in progress, continually reshaped by changing economies, technologies and societies.

Convention centres are unlikely to be any different. If anything, they may experience even greater transformation. Few building typologies operate at the intersection of so many rapidly evolving forces. Digital technologies continue to redefine communication. Artificial intelligence is reshaping business interactions.

Climate change is altering how infrastructure is designed and operated. Sustainability expectations are becoming increasingly stringent. Cities themselves are evolving as



"Future-ready structures must anticipate climate, technology and resilience, not just today's loads."

Mangesh Chorage

economic priorities, mobility systems and patterns of public life continue to shift.

Against this backdrop, perhaps the most unrealistic expectation would be to believe that the convention centre completed today will continue serving tomorrow exactly as it serves today. The future will demand change. The only uncertainty is the form that change will take. That understanding has quietly united every perspective explored throughout this feature.

Venue operators are preparing for event formats that continue to evolve. Architects are replacing fixed programmes with adaptable spatial frameworks. Structural engineers are designing reserve capacity for technologies that have not yet arrived. Project managers are encouraging owners to evaluate lifecycle value instead of construction cost alone. Structural steel specialists are advocating modular systems capable of expansion rather than premature replacement. Different disciplines, different responsibilities, yet remarkably, one shared conclusion.

The convention centre of the future cannot be designed around certainty. It must be designed around possibility. That possibility begins with architecture capable of accommodating change rather than resisting it. It continues with structural systems that enable expansion instead of constraining it. It depends upon engineering that anticipates resilience rather than merely satisfying minimum code requirements.

It requires project teams willing to protect long-term value even when immediate commercial pressures

suggest otherwise. And ultimately, it demands cities that recognise convention centres not simply as buildings, but as strategic public infrastructure capable of generating economic, cultural and intellectual capital for generations.

Perhaps that is why the conversation around future-proofing has matured so significantly. A decade ago, discussions focused largely on bigger halls, taller roofs and more impressive architecture.

Today, success is being measured rather differently. Can the building absorb technologies that do not yet exist? Can it support businesses that have not yet been created? Can it accommodate patterns of gathering that remain impossible to predict? Can it continue contributing to its city fifty years after its inauguration? These questions are no longer philosophical. They are becoming central design criteria.

The answers, however, will not emerge from any single profession. Future-ready convention centres will never be the product of architecture alone, nor structural engineering alone, nor steel alone, nor technology alone. They will emerge from collaboration.

From architects who think beyond buildings, from structural engineers who design beyond today's loading conditions, from project managers who defend lifecycle value, from operators who understand evolving user expectations, from fabricators capable of translating ambitious concepts into buildable reality, and from clients willing to invest not simply in construction, but in longevity.

Collectively, they are redefining what future-proofing truly means. It is no longer about predicting the future with perfect accuracy. It is about creating buildings intelligent enough to welcome futures that nobody can yet imagine. Perhaps that is the greatest lesson convention centres offer the wider construction industry.

The objective is no longer to create buildings that merely endure. Concrete can endure, steel can endure, foundations can endure. What matters is something far more demanding. Whether the ideas embedded within

those structures continue to endure, whether the building remains useful after technologies have changed, whether it remains relevant after business models have evolved, whether it continues bringing people together after generations have passed. Because, ultimately, the lifespan of a building is not measured only in years. It is measured in its continued ability to create value.

For architects, engineers and developers, that may become the defining challenge of the decades ahead. Not simply designing buildings that last, but designing buildings that never stop evolving. And perhaps, in a world changing faster than ever before, that is the closest we can come to building for the future. ■

CLOSING NOTE

Every generation inherits the responsibility of building for its time. The challenge before ours is different, we must build for times we cannot yet foresee. Convention centres offer perhaps the clearest reminder that future-ready infrastructure is not defined by its size, its architectural expression or even its engineering excellence alone. Its true strength lies in its ability to embrace change without losing purpose.

As India invests in the next generation of convention infrastructure, the conversation must move beyond creating larger venues to creating more adaptable, resilient and enduring places. Because, in the end, the most successful buildings will not be those that simply withstand the test of time, but those that continue creating value as time itself changes.

That, perhaps, is the true blueprint of a future-proof convention centre.

Mahesh Mudaliar