



WHEN TECH MARRIES DESIGN

Tech-savvy hotel interiors have become a vital aspect of design. How do hoteliers and architects achieve that fine blend when it comes to integrating technology with design? Read to find out more.

BY SAYLI MOHITE

echnology has become increasingly important in the hotel industry today. "Technology has streamlined many hotel operations such as booking, billing and housekeeping, enabling hotels to operate more efficiently and reduce costs. Social media and online travel agents have become vital marketing tools for hotels to attract more guests, thus enabling

technology to reach a wider audience. Even security can be improved with the installation of security cameras, key card systems etc," says Gautam Khanna, Director of Operations, Raffles Udaipur.

www.hotelierindia.com



€ In restaurants, Smart lighting systems can be effectively utilized to fashion bespoke and unique dining

Likewise, technology has also enabled the use of new ideas to curate hotel designs and make guests more comfortable. Al tools, smart-tech features, gadgets etc are showing up in the interior design as well as facades of a hotel. Even minute details such as the location of the USB ports, sensor switches and entertainment corners determine how hotels are supposed to be designed.

Pragnesh Doctoria, Associate Vice President - Projects & Engineering Operations, Chalet Hotels Limited, demonstrates, "In recent times, technology has emerged as a crucial element in the design and operation of hotels. Systems implemented in design can



🗢 Gautam Khanna, Director of Operations, Raffles Udaipur



Social media and online travel agents have become vital marketing tools for hotels to attract more guests, thus enabling technology to reach a wider audience." — Gautam Khanna



● Programmable thermostats can be employed to adjust temperature settings based on occupancy and time of day

www.hotelierindia.com

HOTELIER INDIA | MAY 2023 | 45

not only add comfort to guests but also interest in the way hotels look and feel. Booking systems, check-in kiosks, in-room amenities, and digital signage are among the many technological innovations being utilized to enhance the guest experience and optimize hotel operations."

CAREFUL CURATIONS

Across the board, hotels are being carefully designed to prioritize ecosystems and ergonomics, all of which will support the well-being of guests. Along with taking care of the guests, architects pay utmost attention towards simplifying hotel operations through their designs.

Mitu Mathur, Director, GPM Architects and Planners, elaborates, "Our team specialises in conceptualising spaces that strike a balance between high-end luxury and top-notch services that make a great first and lasting impression on the minds of the customer. Furthermore, reducing redundancy is necessary. Wastage of circulation areas, installation of expensive materials in lesser-used spaces need to be omitted."

She adds, "The hospitality industry has embraced adaptations based on the evolving consumer mindset, one of which is focusing on user experience over anything else. Therefore, we focus on integrating the latest technologies in design across the various spectrums of design and project implementation. Furthermore, as technological innovations provide luxury and comfort to the user, automation such as sensor-activated lighting and voice-activated appliances have become increasingly popular in the hospitality industry."

HOTELIERS TAKE

During the initial design stages, it becomes critical for architects, hoteliers, sustainability consultants and MEP engineers to execute a successful plan for the outcome to be sustainable, cost-effective and efficient.

Pragnesh Doctoria shares tips for architects to integrate technology into hotel designs:

• Strong emphasis on sustainability:

Architects should consider incor-

porating sustainable technology into their hotel design, such as energy-efficient lighting, water-saving fixtures and smart thermostats to reduce energy consumption and carbon footprint.

- Create a seamless guest experience: Architects should keep the guest experience at the forefront of their design. They should consider how technology can be used to enhance the guest experience, from personalized room settings to in-room entertainment and digital concierge services.
- Optimize operational efficiency: Technology can be used to streamline hotel operations, such as implementing automated check-in and check-out processes or using energy-efficient lighting and temperature controls.
- Simple design elements: Like having larger apertures can increase the in-flow of natural light and reduce artificial lighting required in the daytime. Sometimes, traditional building techniques and materials provide better results. Double walls provide excellent thermal insulation at a much lower construction cost. Incorporating smart landscaping tuned with integrated tech further has heat management properties.
- Designing with the end-user mind: Is the first step that reduces major dependencies on artificial substitutes. Our ancient monuments are prime examples of excellent lighting, insulation, ventilation, and overall ergonomics. Modern technology and design should optimize these old learnings to their true modern potential.

MODERN DESIGNS

Architects and interior designers are ensuring that the hospitality industry is leading the way to tech-savvy lobbies, restaurants, rooms and other recreational spaces.

Khozema Chitalwala, Principal Architect and Designer, Designers Group, shows ways in which architects incorporate technology in different parts of a hotel:

Lobby: Intelligent lighting systems enable swift adaptation of lighting levels based on occupancy and external conditions. Integration of colour-changing LED lighting facilitates visually dynamic spaces. HVAC systems, with programmable thermostats and motion sensors, optimize temperature, air quality and energy usage.

Restaurants: Smart lighting systems can be effectively utilized



D In restaurants, HVAC systems occupancy sensors, alongside kitchen exhaust hoods and air curtains, enable the provision of pleasant and sanitary air quality



 Pragnesh Doctoria, Associate Vice President - Engineering Projects & Operations - Chalet Hotels Limited



Mitu Mathur, Director, GPM Architects and Planners

to fashion bespoke and unique dining environments, which are further elevated through the introduction of color-changing LED lighting, affording diners a visually captivating and tailored experience. In addition, HVAC systems, replete with temperature and occupancy sensors, alongside kitchen exhaust hoods and air curtains, enable the provision of pleasant and sanitary air quality, while minimizing energy wastage.

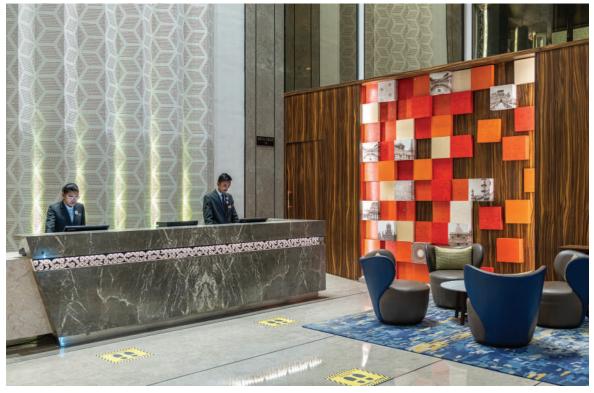
Recreational areas: Utilizing smart lighting systems can create a specific atmosphere and enhance guests overall experience. By incorporating color-changing LED lighting, a dynamic and captivating environment can be achieved. Furthermore, the installation of HVAC systems can ensure comfortable temperatures and optimal air quality for both guests and staff. To prevent mould growth, pool dehumidifiers can be implemented to eliminate excess moisture in the air. In addition, programmable thermostats can be employed to adjust temperature settings based on occupancy and time of day.

ROOM INTERIORS

Smart rooms with sophisticated systems that enable control of the room environment using voice commands or mobile apps are at the forefront of this trend. These encompass lighting, temperature, and even window shades. Furthermore, smart mirrors featuring news updates, weather forecasts, and social media notifications have gained increasing popularity. Wireless charging pads and voice assistants such as Amazon, Alexa and Google Assistant have also been incorporated, allowing guests to effortlessly manage various aspects of their stay. In essence, technology is enabling hotels to create bespoke, streamlined guest experiences while adding a contemporary flair to their interior design," says Chitalwala.

BALANCING LOCAL METHODS WITH TECHNOLOGY

When hospitality and design are rooted in their local culture, they add a charm of their own. Regional



• Technology can be used to streamline hotel operations, such as implementing automated check-in and check-out processes.

touches such as alluring artwork, murals, and restaurant designs act as 'community portals' for visitors. But how do architects strike the right balance between technology and local cultural designs?

Mathur explains, "The most significant learning post-pandemic has been that we cannot function in silos and need to embrace our local systems to become a self-sustainable model. Hotels are representative of the destination, and including storytelling and local elements through design is an emerging trend. The site and its culture are our most significant drivers.

"Hence, highlighting the essence of a place and merging the same with contemporary design ideas to create a range of experiences for visitors is of utmost importance. We aim to strike a bal-



Wireless charging pads and voice assistants such as Amazon, Alexa and Google Assistant have also been incorporated, allowing guests to effortlessly manage various aspects of their stay.

Khozema Chitalwala, Principal Architect and Designer, Designers



Smart mirrors featuring news updates, weather forecasts, and social media notifications have gained increasing popularity." —Khozema Chitalwala, ance between luxury and efficiency by adopting the best practices and intelligent technologies that help avoid wastage of resources. These include smart air-conditioning, sensor lights, low-flow water fixtures, less water-dependent design elements, drip irrigation, capturing solar energy etc."

ALWAYS ROOM FOR MORE

Doctoria shares a few design tips which can be added to the latest layouts for smooth operations. "To achieve higher diversity and reduce utility load, common F&B outlets with multiple compartments are ideal. Efficient kitchen designs can reduce heat load, improve occupational safety, and increase ratings. Chiller plant optimizers help optimize the performance of cooling systems and reduce energy consumption by up to 30 by adjusting the cooling load based on real-time demand, thus reducing energy wastage. Natural organic waste converters can help transform organic waste into fertilizer, reducing the amount of waste that ends up in landfills.

"Ultra-filtration for Sewage Treatment Plants (STP) is a sustainable technology that is used in hotel designs which helps remove pollutants and contaminants from wastewater, making it safe for reuse in non-potable applications such as landscaping or toilet flushing. Rainwater harvesting involves the collection and storage of rainwater for later use in non-potable applications such as irrigation or toilet flushing. Hotels can reduce their reliance on municipal water supplies, conserve natural resources, and reduce their water bills."

Khanna adds, "Data intelligence use of Al tools - ensures data can be stored and utilised as per the need of the operator and helps segment customers on the basis of various parameters. The use of bots can do menial jobs like collecting trash."

While the fundamentals of great hospitality remain the same, technology is definitely here to stay and 'smart' hotels with tech-integrated interiors are way to be...