AUTOMATING SPACES

Architects and designers are making spaces smart by adding elements of automation that add to their efficiency and effectiveness.

By Bindu Gopal Rao

One Villa by Harkaran Boparai Studio (HBS) uses smart lighting, thermostats, HVAC control, security systems, energy management, remote access, and smart irrigation.

BE House by Habitat Architects has a fully integrated home theatre, engineered as an acoustically isolated cocoon with layered soundproofing and precision-calibrated speaker placement.

Harkaran Singh Boparai, Founder and Principal Architect, Harkaran Boparai Studio (HBS).

Today, automation is not just about adding technology or gadgets to a space; it is about enhancing comfort and making everyday living more intuitive. That is how smart systems help strike a mindful balance between innovation, functionality, and following the aesthetics of space. Here are some projects that exemplify this thought process.

SERENE COVE BY OPEN ATELIER MUMBAI

At Serene Cove, a 1600 sq ft residence designed for a family rooted in value-driven living, automation helped strike the right balance between modern convenience and creating a soulful ambience. The brief called for a design that evolved with the occupant's lifestyle—practical, personal, and adaptable.

Human-centric lighting (HCL) became central to this narrative. "This automation system responds to the time of day and the activity being performed, alternating between soft, warm lighting for a relaxed atmosphere to brighter tones suited for more focused tasks like reading or painting. We also incorporated Hunter Douglas Duette blinds to control light exposure based on the user's needs, easily moving between sheer and blackout settings. The smart automation also extends to embedded music systems and concealed electronics, ensuring the overall experience remains visually uncluttered," says Rahul Mistri, Founder and Principal Designer, Open Atelier Mumbai.

Every automation element was chosen for its ability to enhance the idea of comfort and convenience in the spaces without overwhelming them. Ultimately, these layered interventions ensure the home remains functional and deeply personal, a space that evolves with its users and celebrates their everyday lives.

Serene Cove by Open Atelier Mumbai has human-centric lighting (HCL) as a central narrative.

Sahir Choudhary, Director - Operations and Sr Architect, Habitat Architects.

ONE VILLA BY HARKARAN BOPARAI STUDIO (HBS)

One Villa, a residence in Gurdaspur, Punjab, integrates a thoughtful range of home automation systems tailored to elevate living through enhanced security, energy efficiency, and daily convenience. Key automation elements include smart lighting, thermostats, HVAC control, security systems, energy management, remote access, and smart irrigation—each selected to meet the specific demands of the local context.
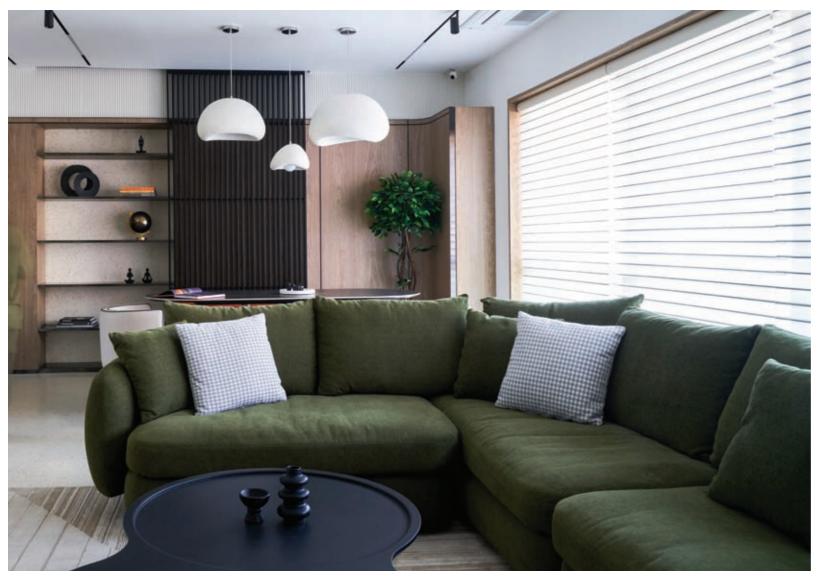
Smart thermostats play a pivotal role in maintaining indoor comfort while optimising energy use, particularly vital given Punjab's extreme seasonal temperatures and intermittent power supply. "These systems automatically adjust settings based on occupancy, time of day, and user preferences, and can be remotely managed via smartphones, an essential feature for residents often working outdoors or away from home. The HVAC system complements this by improving air quality and reducing energy waste through intelligent climate control. In terms of security, the project deploys smart locks, video doorbells, motion-detecting security cameras, and window and door sensors, offering real-time monitoring and alerts to address the vulnerabilities of isolated rural homes. Motion-activated outdoor lighting further deters unwanted intrusions," says Harkaran Singh Boparai, Founder and Principal Architect, Harkaran Boparai Studio (HBS).

Automation also extends to daily comfort, with features like voice-controlled appliances, entertainment systems, and air-quality devices such as purifiers and humidifiers. In the outdoors, smart irrigation systems enable efficient water use, supporting both sustainability and local agricultural practices. Aesthetic details, such as snap-on interchangeable switch covers, make the integration of technology seamless within interior spaces. Overall, the automation elements in One

Rahul Mistri, Founder and Principal Designer, Open Atelier Mumbai.

Mrignain by Studio Jane Designs has lights where every area is zoned and pre-programmed—not just to turn on and off, but to adapt.

Villa enhance safety, comfort, and lifestyle in a way that is both modern and deeply attuned to the life of the homeowners.

MRIGNAIN BY STUDIO JANE DESIGNS

The idea behind Mrignain was not to showcase technology but to make it disappear. This home was not designed to feel 'high-tech' but to feel intuitive, seamless, and quietly intelligent.

Lighting was a major part of the automation strategy. Every area is zoned and pre-programmed—not just to turn on and off, but to adapt. Path lights come on automatically when someone walks through at night. "Art lighting adjusts temperature based on the time of day. In select rooms, lighting is synced to movement and presence, creating an almost cinematic effect that makes the space feel alive. We built the house on a centralised automation platform that controls lighting, temperature, security, blinds, and audio. Security was non-negotiable. We integrated biometric and facial recognition access, smart locks, discreet motion sensors, and a full CCTV network that can be monitored from anywhere. The system is not just reactive—it is intelligent. It knows what a "normal" day looks like and flags only when something feels off," says Neha Garg, Founder & Principal Designer, Studio Jane Designs.

Audio was handled with the same mindset—zero clutter. "We used invisible wall-embedded speakers throughout the home, so there is no visual tech, just ambient sound. The system can play different music in different rooms or sync

Neha Garg, Founder & Principal Designer, Studio Jane Designs.

the entire house for a unified experience. Zones like the terrace or kitchen have their own mood presets. Smart thermostats learn usage patterns and adjust automatically. Motorised blinds respond to sunlight to reduce heat load during the day. Energy consumption stays low without sacrificing comfort," says Garg.

BE HOUSE BY HABITAT ARCHITECTS

At BE House, innovation is not an add-on—it is embedded into the very architecture of the home. From intuitive lighting and climate control to discreet security systems, every function is powered by intelligent automation that adapts to the rhythm of the residents' lives.

A standout is the fully integrated home theatre, engineered as an acoustically isolated cocoon with layered soundproofing and precision-calibrated speaker placement. "The space features a starlit ceiling with over 500 individually mapped fibre-optic nodes, creating a celestial canopy that mirrors the night sky. High-lumen projection, Dolby surround sound, and app-based environmental controls ensure a cinematic experience that rivals a professional theatre—yet feels utterly personal. Every material and control system was selected to heighten sensory immersion, making this not just a room, but a performance in spatial design," says Sahir Choudhary, Director - Operations and Sr Architect, Habitat Architects.

A smart swimming pool extends the narrative of intelligent indulgence. Temperature-controlled and equipped with mineral purification, it offers a chemical-light, skin-sensitive swim experience. "Water jets, underwater LED lighting, and mood-based soundscapes are synced to the central system, adjustable with a single tap voice prompt. Here, even the home's wellness cues are digitally responsive, from circadian lighting indoors to low-emission building materials that enhance air quality. At BE House, every detail is engineered to anticipate, adapt, and elevate the experience of living," adds Sahir. ∎