

# Smart, safe & sustainable

**Commercial Design** looks into why lighting automation is fast gaining a foothold, and how it's bringing a tremendous change from the conventional systems in the post-covid world





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## Lighting

**C**ovid-19 has turned our personal lives and working worlds upside down. After months of forced participation in a comprehensive work-from-home experiment, our expectations around work and the workplace have fundamentally changed accelerating a trend already evident over the past two decades.

Like much else, the way we illuminate the spaces we inhabit is set to change along with our changed priorities after the pandemic. Pre-existing trends in workplace wellbeing, biophilia and online communication has already accelerated, while new uses of retail spaces, the high street and even the home will emerge. The design of lighting will have to respond to these shifts so that it plays a key role in articulating our new built environment.

One of the foremost trends is that workplace lighting will get more creative. This will be a megatrend in offices. Progressive employers will invest in their interiors, and statement lighting, to foster loyalty, belonging and community. The explosion of foliage within the workplace environment will emphasise an employer's dedication to health and the environment. This biophilia trend is a challenge as it involves a balance between the

plants' needs and the aesthetics of the illumination. A wave of work-local offices in dormitory and regional towns – as major employers grapple with hybrid working and a hub-and-spoke footprint – will represent a new and exciting market for creative workplace lighting. A trend before the pandemic, the move to higher quality lighting – low glare, low flicker, higher colour rendering – will accelerate as wellbeing in workplaces becomes paramount and version two of the WELL standard becomes more popular.

UV-C mercury lamps, mounted

above people's heads and shielded from sight, are being increasingly used to kill airborne viruses. But just how big this market this turns out to be, when everyone has had a vaccine, remains to be seen.

Adding further on to these trends, Akshat Bhat, Principal Architect, Architecture Discipline, states that "Sensor-based lighting eliminates the need for human-activated controls. Light



Akshat Bhat, Principal Architect, Architecture Discipline



Vive System's product range by Lutron.



Sekura Office in Mexico City, using Lutron's Vive System to deliver high performance, occupant comfort, enhanced productivity within given timeframe and under budget.



## NEW TECHNOLOGIES THAT ARE BEING INTEGRATED WITH LIGHTING SOLUTIONS

With the help of Power over Ethernet (PoE) technology, we can achieve wonders. Wipro's PoE Technology offered under its brand identity of Internet of Lighting (IoL)® has 5-in-1 key advantages:

### PoE for Safety:

Being a DC solution, PoE has relatively low voltages, so there are less chances of potential hazard. No more power cables are utilized. It has a unique system architecture which reduces the number of infrastructures required in a building.

### PoE for Protection:

Using PoE, we offer ULTRARAY™ - our integrated UV-C light with dual functionality in the same fixture. This offering is thoughtfully designed in apt wattages to ensure complete user safety in refurbishment as well as green field applications. The system has a capability of easily integrating with intelligent controls and compatible with automation.

### PoE for Well-being (human centric lighting):

Wipro's inSync™ - human centric lighting solution is designed for uplifting mood and maximising energy levels in employees. It has shown visible results with improved motivation and increased concentration levels. This high performance lighting is aligned to the human biological clock. Right light levels enhance the design environment experience.

### PoE for Occupant Experience

Wipro Lighting in collaboration with Mapiq, Netherlands, offer Smart Office Solution with Mapiq Office Shifts. These solutions are centered around effective Space Utilisation, Energy Mapping & Optimisation, Personalised Lighting Control.

### PoE for Connectivity with LiFi

Wipro Lighting in collaboration with pureLiFi, Scotland,



offers LiFi – a high-speed bidirectional fully networked, wireless communications using visible light. LiFi technology has significantly greater security, data rates and densities. It supports more robust and reliable wireless networks. Though in nascent stage, this technology is going to revolutionize the future of wireless communications and lighting.



Inputs by Ramakrishna Puranam,  
Workplace IoT Technology  
Expert, Wipro Lighting

fixtures across the floor-plate are being replaced with sensor-based products to provide a touch-free experience. At the East India Hotel Headquarters, a corporate office in Gurgaon, the design seamlessly merges state-of-the-art technology like Bluetooth/ Wi-Fi networks, wall-mounted tablets, and smart boards to facilitate productivity. Smart automation allows the services and lighting systems to be capable of sensing ambient stimuli and adjusting itself accordingly to meet the desired comfort levels for the users. It also allows users to control

lighting, video conferencing, and roller blinds etc. optimizing energy efficiency."

Elaborating on some of the key benefits of these innovations and how they aid in day-to-day operations, while also contributing to RoI, Ripu Daman Sharma, Sr. Country Manager - India Subcon, Lutron Electronics, says, "Smart lighting control can significantly decrease lighting energy use, and help meet building code, but the greatest value integrated lighting systems can add for both the owner and tenant, is to enhance comfort and employee productivity and reduce building



Ripu Daman Sharma, Sr. Country  
Manager - India Subcon, Lutron  
Electronics

operating costs. Latest innovations incorporate advanced lighting and shade control strategies and intuitive software to directly impact all three areas of building cost. It provides facility managers and owners the ability to collect and manage data that drives building decisions, simplifies, and speeds system adjustments, and maximizes building value. For example, the wireless lighting control from Lutron known as Vive can save installation cost and continue to save energy in day-to-day operation, offering ROI period as short as two years after installation." 📸