AGIL™

Smart Lighting Solution

Delivering Value Beyond Illumination

Most Innovative Energy Savings Award (2018)
IES Prestigious Engineering Achievement Awards

ST Engineering

EMPOWERING CITIES

WITH SUSTAINABLE IOT LIGHTING

Driving the Future with AGIL™

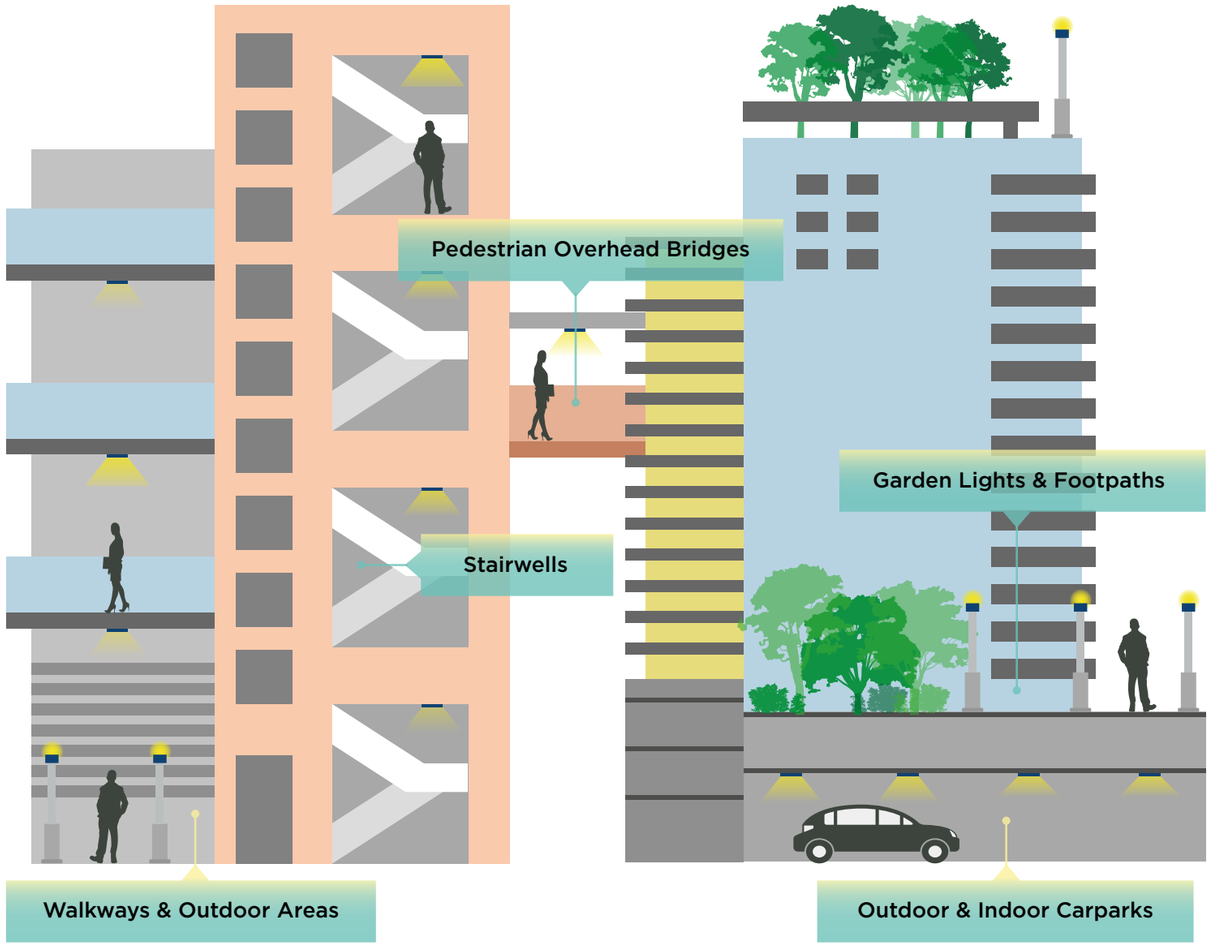
Demand to transform urban spaces into sustainable smart cities enabled seamlessly by cost-effective and smart technologies are shaping the future. We are obsessed with a deep sense of purpose to address a range of evolving challenges, whether it is reducing emission of greenhouse gases, improving asset performance or optimising data analytics and trends for future demand planning to create smarter and safer living environments.

The importance of efficient, connected and data-driven systems, utilising IoT-enabled on-demand lighting technologies that promote energy efficiency, optimised demand planning and increased cost saving drive our solutioning approach. AGIL™, our unique solutioning approach, acts as the heart of our conscious innovation to constantly seek and challenge incisive, inventive and intuitive solutions to help solve real-world problems. With emerging technology and experiential thinking, we have effected over 100 large-scale security projects across over 22 cities.

Internet of Things (IoT) is growing at a rapid pace—and on the forefront comes smart lighting. Lighting is one of the highest energy consumers. It accounts for 40% of energy usage and takes up a large portion of maintenance expenditure. City planners now choose to invest in smart lighting for energy-efficiency and sustainability, optimised operational efficiency and secure data analytics for future demand planning without compromising safety, security and visual comfort.

AGIL™ Smart Lighting Solution combines a secured proprietary wireless mesh network of sensors with a smart control system to achieve maximised lighting efficiency at low operating costs.

Our award-winning solution allows remote configuration and continuous data collection for performance optimisation. The solution also creates a build core network for other smart IoT-driven applications such as automated emergency light tester, temperature sensor, and air quality sensor to generate future actionable insights.



Features

Configurable Lighting Profiles
User-friendly interface enables remote configuration and tailored dimming profiles

Anticipatory Illumination
Occupancy and targeted progressive dimming

Self-diagnostic & Fail-safe
On-condition monitoring of luminaires allow preventive maintenance and failure prediction

Scalable & Flexible
Operational convenience to scale network infrastructure according to demand and requirement

Secure
User authenticated, reliable and robust 128-bit Stream Cipher Encryption resistant to unauthorised access

Benefits

Cost & Energy Savings
Drive down operating cost of up to 55% on top of LED savings

Green & Sustainable
Reduce carbon emission for environmental sustainability

Smart Data Analytics
Intelligent analytics to assess lighting patterns for demand planning

Future Ready
Interoperable technology for larger IoT-driven smart city applications

Affordable
Financing options to address mixed space usage demands

City planners and business owners use smart lighting for cost saving, operational efficiency, sustainability and remote monitoring for a wide range of applications.

Use case application Residential Estate
Challenge: Upgrade of lighting network in large scale brown field matured estate due to multiple environmental communication interference causing disruption of lighting to residents
Solution: 10,000 LED lights with motion-sensing technology managed within a single platform equipped with data analytics for environment monitoring and maintenance optimisation
Result: Energy consumption slashed by more than 50 percent. Improved lighting environment and experience for residents without service disruption. The IoT-enabled sensors build core network for future integration with applications such as water metering, temperature sensing and air quality monitoring.

Use case application: Commercial Building
Challenge: Indoor carpark with high energy usage due to 24-hour operations
Solution: 260 units x 18W anti-mask and anti-break IP65 LED batten with wireless smart sensors to promote energy savings, improve light quality, remote monitoring for ease of maintenance
Result: Energy consumption slashed by more than 55 per cent aligning with the building's sustainability goals. Provided increased maintenance efficiency with the added advantage of tamper-resistant lights to protect against vandalism.

Use case application: Hospital
Challenge: Deployment in a brown field link way with aging fluorescent lighting
Solution: LED lighting upgrade rollout with Smart Energy Dashboard allowing wireless mesh communication between luminaires for improved lighting experience and increased energy savings
Result: Energy consumption slashed by more than 70 percent attributed to data analytics feature to monitor and understand human traffic behaviour within the hospital for future planning.

ST Engineering is a global technology, defence and engineering group specialising in the aerospace, electronics, land systems and marine sectors. The Group employs about 23,000 people across offices in Asia, Europe, Middle East and the U.S., serving customers in the defence, government and commercial segments in more than 100 countries. With more than 700 smart city projects across 130 cities in its track record, the Group continues to help transform cities through its suite of Smart Mobility, Smart Security and Smart Environment solutions. Headquartered in Singapore, ST Engineering reported revenue of $7.9b in FY2019 and it ranks among the largest companies listed on the Singapore Exchange. It is a component stock of the FTSE Straits Times Index, MSCI Singapore, iEdge SG ESG Transparency Index and iEdge SG ESG Leaders Index.

The Electronics sector specialises in the design, development and delivery of Information and Communications Technology (ICT) products, solutions and services addressing the needs of Smart Cities for Connectivity, Mobility and Security. Its deep technological and engineering expertise straddles business domains in Rail & Road Engineering, Satellite Communications, Public Safety & Security, Cybersecurity, Artificial Intelligence, Training & Simulation, Managed Services and Defense C4ISR. It has presence in more than 30 global cities across U.S., Europe, Africa, the Middle East, China, India and Southeast Asia. For more information, please visit www.stengg.com.

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