MyMesh
Wireless Solutions

Overview

MyMesh is a unique network protocol that was specifically engineered to be safe, robust and scalable, making it perfect for the professional domain. It offers a wide variety of possibilities to connect, manage and control thousands of devices simultaneously.

As lighting is present in almost every area of a building, by incorporating Mymesh into luminaires within a building it provides a wireless mesh backbone for not only the lighting control system, but also for other sensors and actuators including air quality, CO2, humidity, temperature, presence, light and noise. The Mymesh backbone can also facilitate features within the building such as asset tracking, people tracking and real time vital statistics including pulse and body temperature.

Solarcrown incorporate Mymesh technology into a large range of our luminaires to enable us to design robust lighting controls systems and addressable emergency lighting systems. Once commissioned as a lighting control system, Mymesh can work independently or can be connected securely via a gateway device to the Mymesh Management System, MMS for short. MMS is a powerful dashboard that allows the user easily check, monitor, analyse and control their lighting network's data at all times. It functions as a portal to manage your building data in the easiest and most effective way possible.

Overview

Luminaires and controls can be grouped during commissioning, the devices do not need to be on the same electrical circuit as all of the control is done intelligently via the wireless interface, programmed via the commissioning tool, making the system a very dynamic and versatile solution.

Scenes

Various Scenes can be created within each network, allowing different lighting situations for different occasions to be created. It is possible to control multiple luminaires to create the perfect ambience for different occasions and needs. Scenes can be controlled by Sensors and timers to allow the lighting to behave in the desired manner at different times of day and occupancy levels.

Interfaces

MyMesh has the facility to interface with other systems within the building such as the fire alarm and intruder alarm. When the fire is activated the network can be programmed to switch on all luminaires to allow the safe evacuation of the building. The intruder alarm interface can be set to switch off all lighting in the building when armed, if the intruder alarm is triggered it can be programmed to switch on all of the luminaires in the building to help deter intruders.

Timers

A timer can be incorporated into the MyMesh system so that it can include its own calendar and timer functionality, scenes and settings can be can be changed based on a convenient time, date or certain weekdays to fit users' needs, seasons and different activities.

Tuneable White

The MyMesh system allows tuneable white luminaires to be programmed to change colour temperature and intensity depending on the situation. Profiles can be set that mean the luminaire automatically follow a curve simulating the colour temperatures and intensities of natural daylight. Switches can also be incorporated to allow the user to set scenes locally.

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solarcrown
APPLIED ENERGY SOLUTIONS

Energy Monitoring

The MMS dashboard allows the user to monitor energy and usage of the lighting in the building as a whole with the ability to also show each area individually, this gives the user as little or as much information that they require to make judgements about the usage and any changes that could be made to their building.

Emergency Lighting Monitoring

The MMS dashboard, email report service and push notifications provide an automated emergency lighting system that performs and record all of the emergency lighting test results in accordance with BS 5266. If maintained, this always provides the building's owners and users with a compliant emergency lighting system. An automated email of the test results is sent out on a monthly basis and if there are any faults on the emergency lighting system push notifications are sent out to notify the relevant person(s) of the fault so that it can be rectified immediately.

Diagnostics

The MMS dashboard provides two way communication, information can be taken out of the system to determine the expected lifespan of its components based on the component manufacturers specifications. This enable proactive and planned maintenance to be carried out which ensures that the lighting system is always at its most efficient and compliant with the original design. Any faults are also reported via the push notifications so that reactive maintenance can also be carried out and faults rectified immediately.

The Solarcrown MyMesh system provides an adaptive technology, with MyMesh the capabilities of your smart building grow with the changing demand of its occupants and technological advancements of the outside world. A Solarcrown MyMesh lighting system ensures that your smart building is adaptive for the future.

MyMesh
Human Centric Lighting
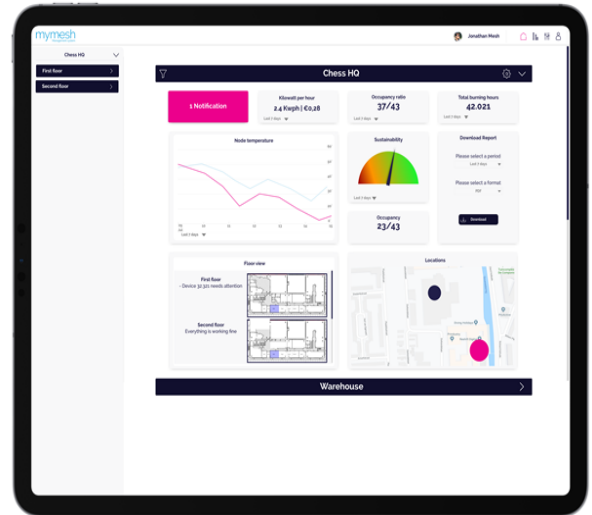
Mymesh Human Centric Lighting

Human Centric Lighting (HCL) is a trend in the 'lighting' industry that explores how lighting influences people's wellbeing, both physically and psychologically. It is based on biological phenomena that occurs in the body and that are influenced by light. This is a natural process in natural daylight in an outdoor space, however, most indoor spaces are dominated by artificial light. We can influence this process by using artificial lighting wisely. With colour changing lighting and the correct intelligent control system, we can let the artificial lighting follow and imitate natural daylight.

HCL can be used for any application, but research suggests that it will be most effective in healthcare (first and foremost elderly care and mental healthcare), schools and offices. The results will be more significant in places where natural light is less abundant.

Although effects of Human Centric Lighting are well established in a laboratory setting, scientific research on the effectiveness in a real-life installation is still ongoing. Subjective feedback is very positive for certain applications, and indications are strong that it has a positive impact on wellbeing.

The effect on body and mind

Thousands of years of evolution have made the human body and physiology know when to rest, sleep and be active. This is called the circadian rhythm. It not only determines when we sleep, but also when we eat and influences our body temperature, blood sugar levels, cell repair and much more. This rhythm is governed by the natural fluctuation of hormones, cortisol and melatonin. The levels are influenced by our activity, lifestyle, and external factors such as sunlight and temperature.

Solarcrown can design a HCL system incorporating the Mymesh system, which allows tuneable white luminaires to be programmed to change colour temperature and intensity depending on the situation. Profiles can be set that mean the luminaire automatically follow a curve simulating the colour temperatures and intensities of natural daylight. Switches can also be incorporated to allow the user to set scenes locally.

MyMesh

Intelligent Emergency Lighting
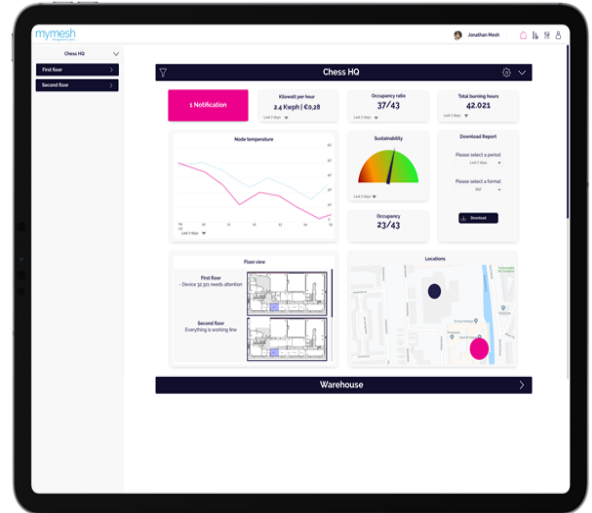
Mymesh Wireless Addressable Emergency Lighting

By incorporating Mymesh in the our emergency luminaires, Solarcrown are able to design and provide a wireless DALI emergency lighting control system.

The MMS dashboard, email report service and push notifications provide an automated emergency lighting system that performs and record all of the emergency lighting test results in accordance with BS 5266. If maintained, this always provides the building's owners and users with a compliant emergency lighting system. An automated email of the test results is sent out on a monthly basis and if there are any faults on the emergency lighting system push notifications are sent out to notify the relevant person(s) of the fault so that it can be rectified immediately.

The MMS Dashboard includes drawings of the building with the positions of the emergency lighting visible, if any faults are identified it is very easy for the user to locate the fault in the building and potentially send an engineer with the correct component to rectify the fault.

Due to the nature of the wireless Mymesh system it is ideal to be retrofitted into existing buildings where the emergency lighting is not upto standard or where the end user wants to be able to remotely monitor the emergency lighting. The nature of the system allows the user to monitor multiple sites via the same MMS dashboard which makes the system ideal for end users that are responsible for multiple sites.