Intelligent lighting control systems

GREENLED INDUSTRY

What if light was the key for a smart and sustainable future?

Light that perfectly suits people's needs, interactive functions and value-added services, intelligent and energy-efficient lighting

Greenled Industry collaborates with its partners to promote innovation in the cities, industries ad buildings that are future oriented, through integrated solutions and platforms that increase the quality of life while reduce the carboon footprint, and creating intelligent, dynamic and customized spaces.

We explore together the incredible potential offered by the "Internet of light", thanks to te combination of intelligent lighting systems and IoT.

Integrating the benefits of LED technology with the remote control system, allow to get advantages that go beyond the simple lighting.
The goal is to re-shape th relationship with our cities and working spaces, in order to lead us towards a sustainable future.

Greenled Industry offers different lighting control levels, from stand-alone to the most advanced solutions.

LIGHTING REMOTE CONTROL SYSTEM

Thanks to the collaboration with primary technological partners, we are able to offer intelligent lighting remote control systems for monitoring and dimming a single lamp or groups of luminaires.
Through the use of the wireless MESH technology, each node of the telecommunication network - whether it is a single light point or a group of luminaires - can be a transmitter, receiver or repeater at the same time (wireless peer-to-peer and bidirectional communication). This system ensures high reliability and it guarantees the continuity of the service, also in case of large territories, by allowing to add flexibility to the network in order to perfectly answer to the changing needs.
The lighting remote management system allows the dimming of the luminous flux through RF (radio frequency) and it is based on an architecture that is functional to different needs of multiple applications.

Power line remote control system:

The remote control and monitoring system provides the installation of a Remote Control Unit inside the control panel, in order to manage and control power lines and to perform remote dimming, to switch on/off remotely a group of luminaires.
It allows the performance analysis of the lighting system, the measurement of the electrical parameters related to the control panel.

"Point-to-point" remote control system:

The system permits to manage and control the single luminaire, allowing the total control of the individual lighting point.
This solution also allows to have complete and useful information in order to efficiently manage the single luminaire and the entire lighting system.

STAND-ALONE SOLUTIONS

Automatic dimming of the luminous flux
(Time dimming)

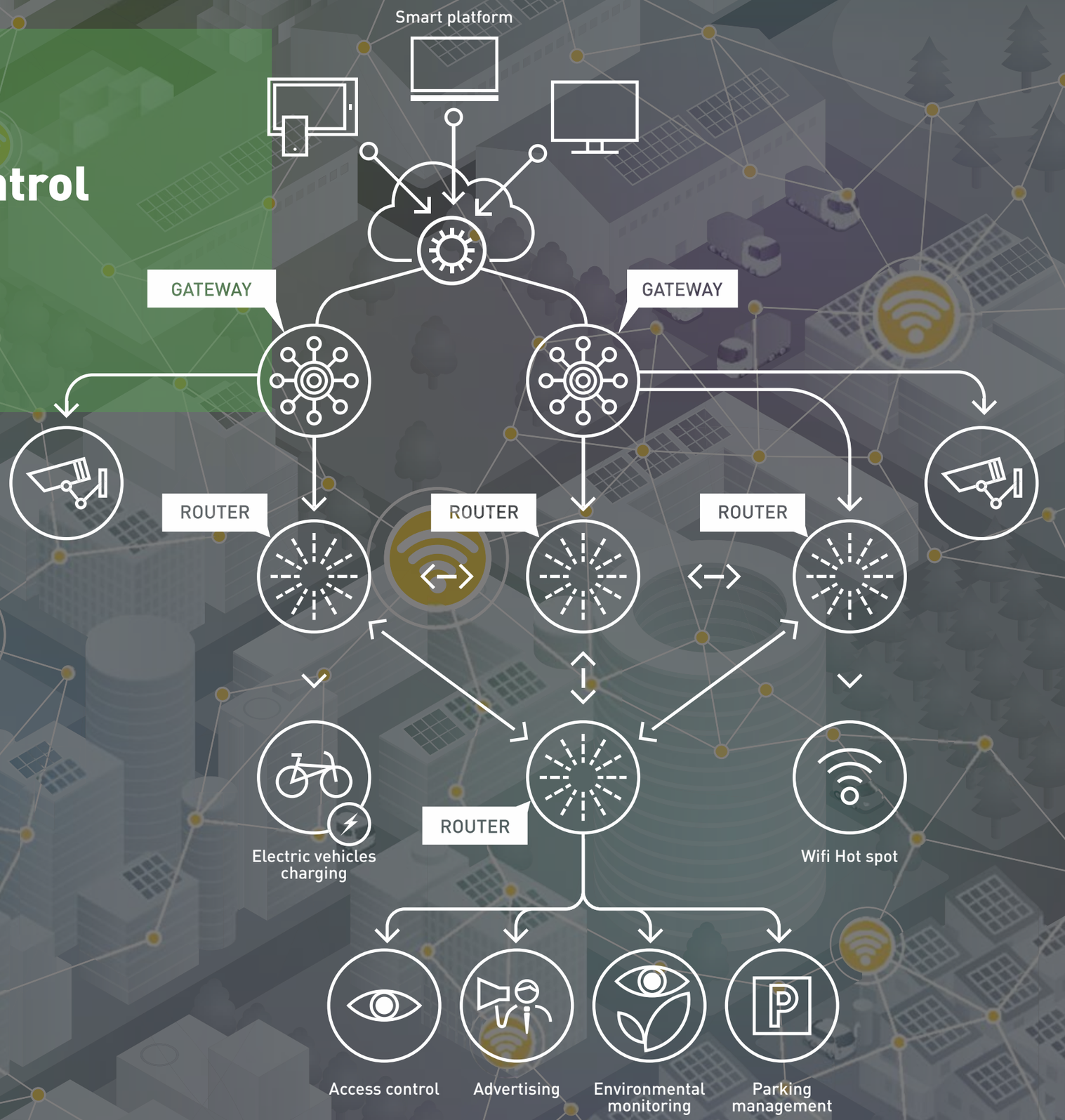
Luminaires can be equipped with intelligent power supplies, configurated with a pre-set or programmable dimming profile.

The lighting fixtures are also comply with the most common dimming standards:

Analog lighting control
(ex. o-10V dimming, PWM dimming).

DALI Digital interface lighting control

Intelligent lighting control solutions



New light for the cities of the future

Cities are the heart of global economy ad social life.
The increase of urbanization and people mobility, new and more sophisticated citizen needs, are progressing and increasing the need of modernization and of new perspective on cities, in order to find innovative ways to enhance urban competitiveness, strategic development and knowledge sharing.
Advanced infrastructure and smart technologies, play a key role to shape the future of our cities.
These cutting-edge solutions enable the improvement of the quality of life and people wellbeing, by making possible the development of more cultural, innovative and sustainable societies.

THINK SMART, CITY!

The Smart city model goes beyond the digitalization and innovative technologies. It transforms cities in an "organism", an organic and multiform system that offers cross-cutting innovation and it is capable to exploit the interconnection and cooperation between the six smart dimensions. This holistic approach helps to create strong and growing networks. The aim is to improve the urban liveability and to protect the natural environment by promoting the active engagement and participation of the citizen.
In this scenario, the public administrations represents the "accelerator" of the new paradigm and the LED lighting systems are the enablers of the city of the future.
Greenled Industry, thanks to the collaboration with a high-qualified technical partners, offers advanced LED lighting systems. Starting from the public lighting plant, the solution is able to create integrated platforms by expanding the offer of value-added services and functions.
The lighting fixture becomes a "smart node" that allows to integrate third-party devices and IoT technologies on the "intelligent pole" and to enable interactive functions aimed to the development of the modern Smart Cities.

THE SMART CITY MODEL PROVIDES SIX IDENTIFIED DIMENSIONS OF "SMARTNESS"

Smart Energy&Environment

Smart People&Economy

Smart Governance

Smart Living

Smart Buildings

Smart Mobility

SMART BUILDINGS THAT IMPROVE THE SPACE'S LIVEABILITY

Intelligent technologies are trasforming buildings, making them more customized, connected and optimized according to people's needs. Maximizing the efficiency and ensuring wellbeing while minimizing the operational costs and the environmental impact. These are the aims from which we start in order to create perfect spaces. Greenled Industry, thanks to the collaboration with qualified partners, is able to offer LED lighting fixtures that are equipped with intelligent remote control system. This solution allows to dimming the light intensity and it makes the luminaire a "communication node" with third-party devices, in order also to integrate Building Management System (BMS) solution that provides the control and supervision of the entire building. Through a continuous data flow and useful information about the environment and the habits of the people who lived there, the system contributes to optimize the resources, to manage the services and to razionalize the energy consumption, while ensuring comfort and safety in the environmements.

A NEW INDUSTRIAL RENAISSANCE: THE SMART INDUSTRY

Digital innovation, Internet of Things, industrial automation and robotics development, systems and platforms that are capable to integrate and comunicate with other technologies by allowing to share knowledge, the growing importance of Big Data and Data Mining.
Companies and workers are facing the deep disruption due to this evolution, leverage of progress that it will bring benefits to businesses, with significant advantages for people and for the professionalism.
In this "industrial renaissance", digital technologies and enabling infrastrucutures, are the main drivers that enhance productivity, growth and development.
Greenled Industry's intelligent lighting solutions, perfectly answer to the most important businesses challenges.
The LED lighting system can be integrated and it can communicate with other smart technologies. This allows to totally exploit all the light potential, making the lighting system the infrastructure that enables the new Smart industry.

An integrated software for remote control and management of the LED lighting system

REMOTE CONTROL SYSTEM FUNCTIONS

Luminous flux dimming and remote configuration of each single lamp or of groups of luminaires. In the indoor environment, the system allows the adaptive lighting, based on presence detectors and on the brightness of the environment.

Programming functions and definition of operating profiles.
The switch on/off and time programming can be related to the single lamp or to the groups of luminaires.

Lighting system performance analysis, monitoring of energy consumption and predictive functions through statistical data processing. Through the alarm management and failure reporting, it helps to optimize the maintenance activity and to ensure the proper lighting system operation.

Telemanagement software.
Detecting, collecting, processing and transmitting operational and performance data through the management platform. Data are available on cloud platform.

The system can be integrated and it can communicate with third-party devices, IoT and IIoT technologies, that are able to detect data about the environment. The aim is to realize Smart City, Smart Bulding and Smart Industry models.

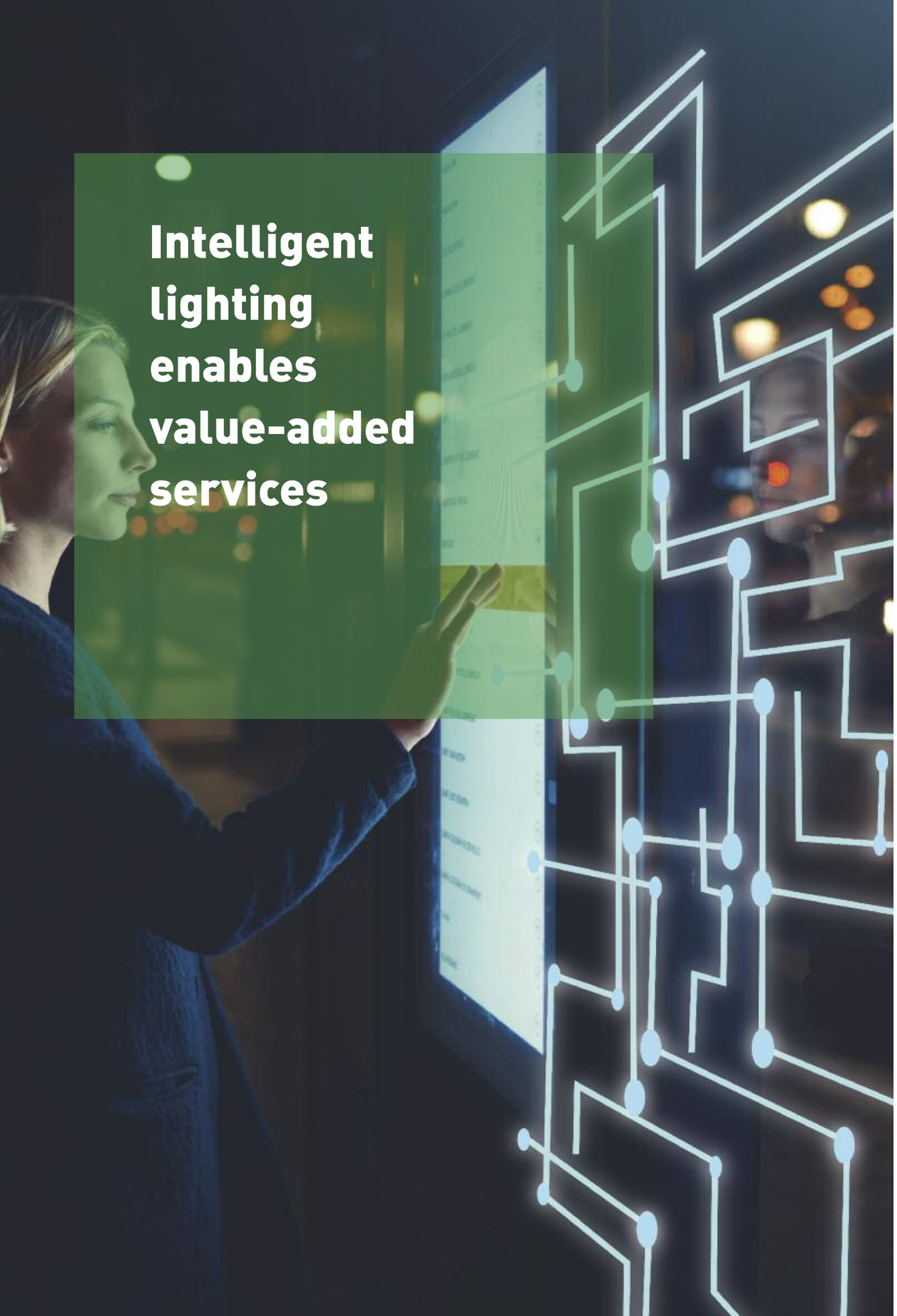
REMOTE CONTROL SYSTEM ADVANTAGES

Energy savings and environmental sustainability
Greenled Industry's products integrated with intelligent lighting remote control system, help to minimize energy consumption and lighting wastes, by reducing environmental impact and lighting pollution

Reduction of maintenance costs
The remote control system contributes to significantly reduce the costs related to the maintenance activities. Through the the lighting management system it is possible to plan and optimize the maintenance operations, with high benefits in terms of costs savings and services efficiency.

Modularity and flexibility
The system is suitable for different scenarios and environments, from public lighting to industrial areas.

Expandibility
The remote control system allows the integration and the communication with intelligent technologies and third-party devices



Intelligent lighting enables value-added services

INTERACTIVE SERVICES FOR THE SMART CITY

The lighting remote control system can be integrated and can communicate with third-party devices in order to enable useful services for citizen, such as wifi connectivity, video surveillance, environmental monitoring, advertising totem, etc.
With the remote point-to-point luminaires management system, any lighting fixture becomes a "smart pole", vehicle of useful information that can be share with other technologies in an "open" approach, in order to create a smart and interactive network.

LIGHT THAT HELPS TO REALIZE EFFICIENT AND SMART BUILDINGS

Thanks to the lighting remote management system it is possible to create more efficient, sustainable and smart buildings.
The intelligent lighting control system, makes the light more adaptive and functional to the people's needs.
It can also integrate the LED lighting system with BMS (Building management system), in order to allow the smart asset management of the entire building, for example energy efficiency solutions, security system, prevention and risk management system (access control, video surveillance, anti-ntrusion and fire alarm system), etc.
Cost savings, high quality of the spaces, more livable and customized environments, comfort and wellbeing, increase of work performance, high energy-efficiency and sustainability, are some of the benefits for the people who lives and works inside smart buildings.

INTELLIGENT AND CONNECTED LIGHTING FOR THE INDUSTRY 4.0

The lighting remote control system can be integrated with BMS and Industrial IoT technologies (IIoT), for example NFC sensors, RFID sensors for logistics and access control, sensors for industrial parameters monitoring. This flexible system allows to improve the efficiency of the industrial asset management and it helps to optimize the use of the industrial factors: from smart logistic and supply chain management to the intelligent manufacturing and distribution processes.

The intelligent lighting remote control system is capable to communicate with third-party devices (sensors, activators, IIoT technologies), while they also communicate with each other. This dynamic ad smart system allows to detect, analyze and manage data about the performance of machines and industrial systems, all useful information that help to optimize maintenance activities, to ensure effective industrial operations and to allow the accurate control of supply chain processes for logistics, distribution and manufacturing.

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