SINGELU

Features of the SInGeLu Remote Management System

The SInGeLu Remote Management System allows technical, efficient and integrated management in outdoor installations, by means of remote and centralized monitoring and control in real time.

Monitoring the installation's operating status allows us to take immediate action in the event of anomalies.

Benefits for your city

- Energy savings
- Maintenance cost reduction
- Reduces light pollution and CO_2 emissions
- Wireless platform for Smart Cities
- Efficient and sustainable management
- Unique and intuitive front end interface

Smart Cities

Main applications

Public spaces
Schools
City Halls
Parking
Public squares
Roads
Pedestrian zones
Sports centers

by Globaltronic
spreading technology

Functionalities

The System provides an API that allows data integration with existing Municipal management platforms. It consists on the web management system, the gateway, the communication aggregator, and the individuals lighting control units.

Key features

Lighting management
Allows a lighting management, being compatible with LED lighting, sodium vapor and solar energy.

Lighting and energy reports
Allows the generation of alarm reports, thus allowing updated information to the user. These reports are sent by email or can be exported in csv files.

Real-time data
Allows real-time monitoring, measuring the consumption, the voltage, the accumulated power consumed, the percentage of dimming, the value of luminosity and the temperature of the system.

Emergency service
Allows access to the emergency service. Whenever this service is active, the lighting belonging to the area / customer will be 100% until the opposite order exists, thus resuming its normal operation.

Map-Based Visualization
The infrastructure is represented in a graphical interface and allows the implementation of the geographic location, as well as monitoring and controlling each luminaire.

Macros
Allows the reading of analog and digital inputs, thus promoting actions either for lighting, to send information via email and/or to activate relay outputs.

Main functionalities

- Allows power regulation in steps of 1%.
- Allows requesting the status of each luminaire, through a telemetry request.
- Allows to operate with 3 communication protocols: DALI / 0-10V / PWM.
- Possibility of connecting PIR motion sensors.
- Allows the programming of the PIR operation time via radio.
- Allows setting the brightness setpoint to turn the luminaire on and off.
- Allows the configuration of 4 time profiles to maximize savings and adjust lighting.
- Allows the dimming to be ramp up, when the luminaires are switching on, during the duration of the sunset.

Plataforma SInGeLu

- The platform can be explored using a device with access to internet connection (PC, tablet or mobile phone).
- To access the platform it is only possible using your own credentials (username or email and password). Each user has a specific access to view or modify the parameters.
- In case of a momentary interruption of RF communication, the control units remain operational according to the last known programming.

Gateway

- The gateway combines network infrastructure, software and dedicated services to enable a range of applications in lighting management. This equipment provides bidirectional RF communication.
- It contains an embedded platform that can also be exploited through a device (PC, tablet or Smartphone). The access can be done via ETH cable, with internet connection (3G / 4G card) or via Wi-Fi.
- To access the gateway platform it is only possible using your own credentials (username and password). It also allows to create a specific access to view or modify parameters.
- The radio frequency used is located in a sub-GHz band, 868MHz, in order to avoid greater interference from other more common commercial frequencies, creating a mesh network.
- It is possible to use two radio units, thus having the possibility of redundancy and/or the possibility of using several peripherals.
- It allows the use of channel selection and encryption key to ensure that the communication system is used in perfect security.
- Enables remote access and software updates.

Operating modes

1. **Mode 1 (stand-alone operation) -** is programmed via radio frequency locally and will work on the configuration sent.
2. **Mode 2 (local management operation) -** allows remote access by IP through the gateway, being able to remotely configure, change the parameters and check the status by requesting telemetry.
3. **Mode 3 (web management operation) -** allows constant monitoring of the operating status, thus producing daily reports of operation.

Other services

- Irrigation management and control for gardens.
- Management and control of lighting by radar sensor (dynamic verification of the luminous flux by the amount of traffic on the road).
- Management and control of ambient sound over IP.
- Parking management and information.
- Management and control of solar lighting, providing information of the charge and the battery status.
- Connection to information panels, via RS232 / RS485 / UART by the gateway communication.
- Energy measurement of the luminaires and/or the general electrical supply panel.
- Connection to information sensors of air quality.
- Emergency service for public security entities.

Cofinanciado por:

COMPETE 2020 PORTUGAL 2020 UNIÃO EUROPEIA
Fundos Europeus
Estruturais e de Investimento

contact us

Avenida das 2 Rodas, nº 830
Parque Empresarial do Casarão
3750-860 Borralha
Portugal

E-mail: geral@globaltronic.pt
Telephone: (+351) 234 604 112
Telephone: (+351) 234 612 687

version A2 | 2020 review: 27/01/2020