



What if artificial lighting went by unnoticed?

Smart and Single Management of Lighting

SmartLi



smart 
ULTIMATE LIGHT MANAGEMENT SOLUTION

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A Brief Introduction

The Smart and Single Management of Lighting, SmartLi, allows the control of the public or private lighting system point by point, interior or exterior.

The base idea consists in making each location the available lighting to the real lighting needs, this way cutting consumptions and costs and increase the quality of lighting and user security.

From this initial idea, and knowing the great potential of the local SmartLi module to acquire the different intervening greatneses, the system will allow the central system to understand the actual and historical state of each location as well as act on the lighting. This way, it creates a new concept in management and maintenance of the installed lighting and logistics.

Main Objectives

Electric Consumption Reduction

The SmartLi system emerged with the purpose of offering a management and lighting control platform in a more efficient and dynamic way of reducing the energetic consumption and consequently the CO2 emissions.

The SmartLi project was born from the steady certainty that we can do much more and way better to protect our planet. The way of energy saving and natural resources. With the will to allow every intervienient in different activity sectors a better and bigger racionalization of energy, an optimized functionality of equipments and allow an higher energetic performance.

Street security and the security perception are the main purposes of this project. An efficient lighting allows a high reduction of road accidents, in the event of not having vehicles moving on the road, it makes great sense to avoid the energy consumption, reducing the road lighting percentage.

Avoiding accidents with vehicles going the wrong way on motorways is another factor that this project considered, avoiding this way serious accidents, like the ones we've been witnessing, and saving this way human lives and all the inherent costs.

Vandalism is another main factor, this project predicts an easy identification everytime the pole doors are violated, protecting the public property and avoiding higher costs.

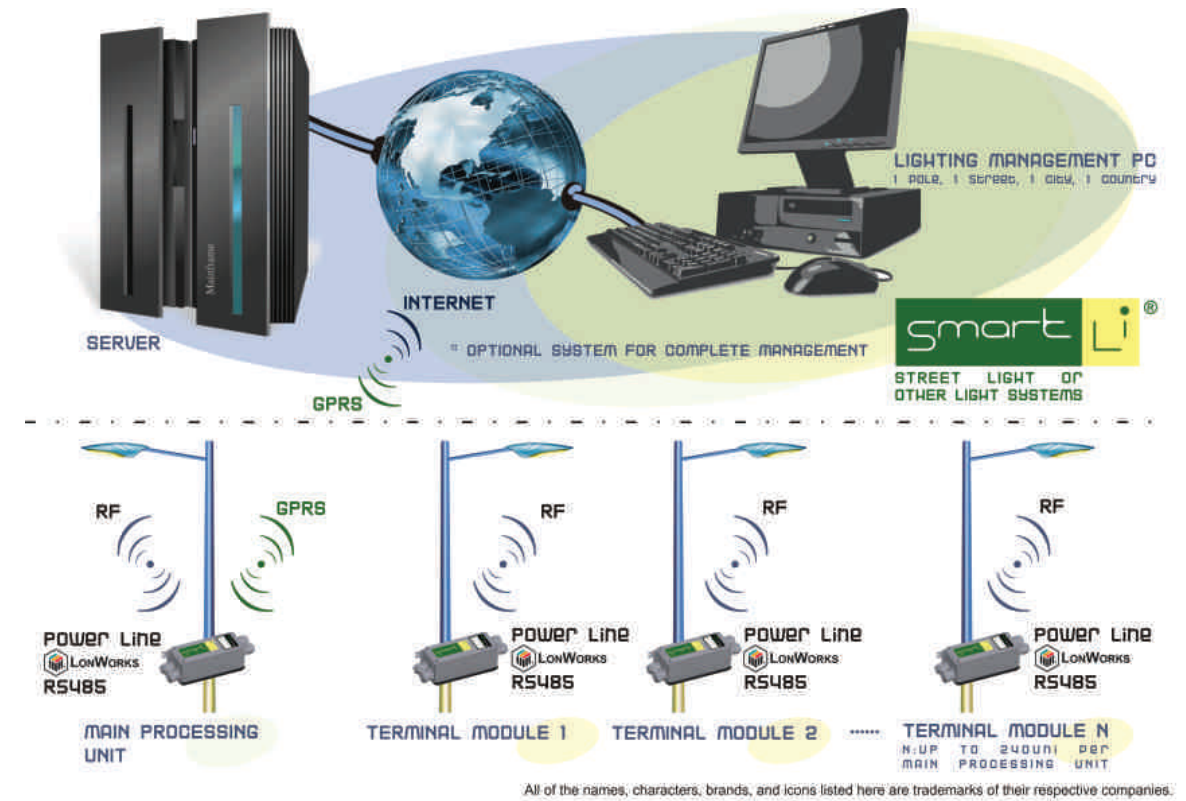


VANDALISM DETECTION
INTERNET/COMMUNICATIONS CONNECTION
GSM/INTERNET MODULE
LIGHTING SENSOR
SHOCK SENSOR - 360°

CONTROL ON/OFF
REAL CONSUMPTION READING
MOVEMENT DETECTION
REAL TIME CLOCK
2 8-BIT MICROPROCESSORS
RF SENDER/RECEIVER
PWM, 0-10 VOLTS, DALI CONTROL
MALFUNCTION DETECTIONS

WORKING TEMPERATURE: -20 TO 70 CELCIUS
IP68
90 TO 250 VOLTS CONNECTION
LOCAL PROGRAMMING/MAINTENANCE BY RF
RF, PLC, RS485, DALI, POWER LINE, LONWORKS

Architecture



Funcionalities

- Timetable control and/or lightness
- Lightness reading by the central processing unit
- ON/OFF control and lightness percentage
- Local control by pole or group of poles to be used by maintenance services and emergency services
- Lighting regulation according to the area use
- Progressive lighting connection accordingly to the natural lighting
- Possibility of installation on existing infra-structures with small changes
- Census/Registry/Database by GPS Coordinates on each lighting pole
- Communication between SmartLi modules (RF/PowerLine (Echelon) RS485)
- Ballast/LED Power Supply Dimmer, 0-10volts, PWM, DALI

Optional

- Budget management for lighting
- Real monitorization of the consumption by lighting pole (+-0,5W) (Patented)
- Control by movement detection
- The central unit daily sends the consumption by lighting pole history to the data base
- Instantly sends pole lighting events (malfunction, high/low temperature, etc...)
- Vandalism detection or lighting pole equipment theft (Patented)
- Real power measurement by the international standards IEC 60687, IEC 61036 and IEC 61268 (Patented)
- Wrong way detection on motorways (Patented).
- Pole lighting collision detection

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