YOUR SECURITY IS OUR TASK.

Systems for an Intelligent Security- and Lighting Network Over IP

SMART CITY

SAFE CITY
In these days a safe and secure environment represents a greatly esteemed value for the public and for the individual.

Modern concepts for a future oriented lighting system of cities and industrial plants include additional topics such as energy optimization, internet access during operating and security by surveillance.

OWLS AG, located in Schaanwald in Liechtenstein fully concentrates on the development, production and international distribution of governmental, municipal and industrial smart grid concepts on RF basis (e.g. intelligent network technologies plus particular value added services) with clear focus on the security aspect in connection with state-of-the-art street lighting (LED and Plasma).

Besides its headquarters in Liechtenstein, a daughter company of OWLS AG, “Lumitronic GmbH”, is taking care of the assembling procedures and serving as International Customer Service Center in Eisenstadt, Austria.

In General

Background

Street Lighting can be found all over the world. Their use is to light public and industrial roads, paths and areas during night time. Existing and future lighting deployments will have to deal with the following:

- Increased demand of the public or the operator for security
- Using the infrastructure for 24h/7days services to generate additional income or value for the operator
- Remote control and monitoring of each individual light point to improve the system operations and maintenance
- Easy system integration

Usage of a reliable and robust system under extreme climatic conditions
- Increasing costs for electrical energy, maintenance and operation
- Reduction of CO2 emissions

FLEXIBILITY TO HAVE THE RIGHT LIGHT AND SURVEILLANCE AT THE RIGHT TIME ON THE RIGHT SPOT.

Differentiating Elements to the Competition

WE DO CONSIDER OURSELVES AS SOLUTION PROVIDER FOR PARTICULAR REQUIREMENTS OF GOVERNMENTAL, MUNICIPAL OR INDUSTRIAL SECURITY, AND LIGHTING SYSTEM OPERATORS

- Worldwide unique smart grid concept including the usage of an embedded CCTV system as integral part of the luminaire (“Safe City System”)
- Clear customer orientation empowering system operators with value added services incl. the growing demand for security in various application forms
- Close attention to extreme climatic conditions
- Flat management structures resulting in quick decisions and fast project realizations
The basic principle is to use existing and future outdoor lighting infrastructure around the world providing a communication, information and public lighting network over IP.

The constant growth of devices connected to the internet is forcing system operators to integrate all their properties into a smart, reliable and scalable communication network.

OWLS iPOLE System:

The iPOLE MECHANICS is an optional multi-functional housing unit (high stability and flexibility) for the monitoring, control, and management of outdoor lighting systems to be put onto a pole or a bracket.

The iPOLE ELECTRONICS consist of a fully potted aluminum tube placed inside the pole with power supplies for the luminaire and the RF & GPS units, 2 relays with individual metering and various other sensors and devices (optional)

OWLS iPOLE System represents a perfect system for intelligent solutions of various particular value added services including the use of a CCTV solution for security purposes by using the existing lighting infrastructure!

OWLS LED Street Light Range

[wattages between 35–140W for replacement of HID/HPS lamps ≤ 250W and pole heights < 12m]

OWLS APL (Plasma) Street Light Range

[wattages between 170–450W for replacement of HID/HPS lamps from 400-1000W and pole heights >12m]
The heart-beat of the OWLS SMART CITY System is a self-developed wireless full Remote Control Management System (RCMS) named "iLICOM" to control, monitor and supervise lighting systems (transmission via RF, mesh network approach, plug-and-play installation and configuration).

**OWLS SMART CITY System**

SMART CITIES WILL USE IN FUTURE THEIR LIGHTING INFRA-STRUCTURE FOR 24 HOURS/7 DAYS SERVICES, GETTING THE "MORE" OUT OF THEIR LIGHTING SYSTEM!

**iLICOM**

lighting + beyond

SMART LED, HID & PLASMA Street Light

- streetlight media
- traffic control
- parking guidance
- usage for event lighting
- motion- and temperature sensors
- environmental data etc.

**OWLS SMART CITY System**

THE PERFECT SOLUTION FOR PARTICULAR VALUE ADDED SERVICES (OPTIONAL) SUCH AS F. EX.

- dynamic dimming
- automatic meter reading
- current- and gas metering of households

**Integrated Angular Adjustment (+15°/-15°)**
SAFE CITY

OWLS SAFE CITY System

THE OWLS SAFE CITY SYSTEM COMBINES CUSTOMIZED VALUE ADDED SERVICES WITH AN EMBEDDED INVISIBLE CCTV SYSTEM (AUDIO AND VIDEO) to provide “safety and security” via the outdoor lighting infrastructure offering the perfect combination of LIGHT (LED or Plasma), COMMUNICATION (public access and works, system operations, public safety, public database, network management center, etc.) and high tech INFORMATION (control room).

THE BRAIN OF SAFE CITY

- Enhanced command and control over the city or the plant by CCTV
- Protection against crime and traffic violence incl. statistics
- Customized solutions incl. features such as f. ex. face recognition

Fields of Application

Industrial Areas

Urban Areas

Street

Railroad Crossing ... and many more!

"WE GIVE YOUR PLACE EARS AND EYES"
SAFE CITY
Model ATHINA

- Wireless Communication
- Video Surveillance Module
  - Video Manager
  - Video Analytics
  - Optional Modules and Sensors
- High Definition LED/Plasma Engine

Specifications Overview
- Main supply: 230 V / 50 Hz
- High voltage peak protection: 10 kV
- LED dimming interface: 1-10 V
- RF comm. lighting: 868 MHz self-healing mesh
- RF comm. CCTV: 1.9-5.9 GHz
- Ambient temperature ta:
  - -25°C / 40°C
  - -55°C / 40°C
  - -55°C / 55°C
- Load switching: 2 Relais 10 A
- Redundancy: Light Sensor
- GPS: Embedded
SAFE CITY

Optional (Software) Camera/Video/Surveillance Features

**ANONYM**
PROTECTS EVERYTHING FOR YOU. EVEN YOUR PRIVACY.

- **anonym** encrypts your video images in real time where it makes sense.
- The video surveillance recognizes all security-relevant events, people, however, are pixilated.
- Thus the consistent protection of private sphere can be assured.
- The original images are as previously saved in the video management system. Access is granted only to a limited group of people.
- Pixelated video data cannot be reconstructed without the original data and are hence safe from misuse.
- The software allows also only partly pixelation of a frame.

**AREAL**
YOUR SAFETY IN EYESHOT. ALSO AROUND THE CORNER.

- High level person detection for perimeter protection
- Designed for outdoor and all weather conditions
- Simplified scene configuration by using just 3 parameters
- Uses a 3D scene model and machine learning for precise object classification
- Seamless integration into VMS systems
- Detection accuracy allows direct alarm forwarding to security centres
- Computer vision algorithms, based on several years joint research with leading European research institutes

**COUNT**
KNOWING WHAT MATTERS. YOU CAN COUNT ON IT.

- Automatic visual analytics
- People counting for top- and side view
- Statistics in real-time
- Filter your data regarding time and location
- Export data for post processing
- No restrictions in defining counting areas
- Check each count event in the VMS alarm list if needed
- Dedicated algorithms for various camera positions
- Computer vision algorithms based on several years joint projects with leading European research institutes
Reference Projects

Biodiesel Plant/France (Safe City)

CCTV locations:
- Cam 1, located at the silo itself
- Cam 2, located at existing pole
- Cam 3, new pole in front of lab
- Cam 4, new pole in front of office
- Cam 5, Licence Plate Recognition with LPR column

- Milestone Server
- Client PC with screen
- Switch Box RJ45
- CAT5 LAN Cable max. 100m and power support 230V (230V only)

- Full coverage of all camera views
- View range columns
- New ATHINA CCTV (location)
- Existing card-reader

For the LPR columns as well as for the ATHINA CCTV units all cabling incl. digging has to be arranged really.

Further realized projects: Moscow/Russia (Safe City), Muscat/Sultanate of Oman (Safe City), Regensdorf/Switzerland (Safe City), Prémery/France (Safe City), etc.