FUTUR VISION PRESENT TECHNOLOGY

Following the biological model…
we develop absolutely innovative video analytics software applications using a proprietary Artificial Vision Engine (**MDS Control**) based on the simulation of artificial neural networks.

…we created a new technology …
aimed at supporting the decision-making process (in Command and Control systems), at analyzing the scene and at monitoring the environment.
Through the analysis of the dynamics of the scene the System understands the alterations, it recognizes their meaning and provides adequate responses based on pre-programmed conditions.
The adaptability is made possible by the implementation of a proprietary programming language through which the System is instructed about the criteria on which to base the analysis of the scene.

… that solve sold problems
MDS Control, unlike many traditional systems, provides real-time responses regarding the desired events, generating structured data from unstructured information.
The capability of recognizing the events, without false alarms, makes MDS Control an extraordinary tool in crime prevention, in the control of sensible areas, in the identification of abnormal behaviors, in the smart management of the road network and of the traffic code, and in supporting security in every industry.

Neulos, born in 2011 from the work of a group of researchers engaged since more than fifteen years in research and development, designs and develops highly innovative software and hardware applications based on the simulation of artificial neural networks, on fuzzy logic, on genetic algorithms, on statistical models, and on the simulation of non-linear chaotic models. Artificial neural networks represent the mathematical model of the biological neuronal circuits. The developed model allows for the simulation of some qualities of the biological learning process, unobtainable through traditional logic and programming.

Our offering:

- Analysis of the functionalities
- Customized projects
- Programming of the scene
- Technical support
- SW maintenance
- Events management
- 24/7 Control Room

MDS CONTROL

MDS Control is based on the capability of simulating the operation of a short-term memory in which it is formed, and continuously updated, a virtual image resulting from all the experiences the neural System is having of environment.
Said memory, used to generate a virtual image of the environmental staticity, allows the System to perform the analysis of the scene dynamics, to understand every alteration and to recognize their

meaning in order to provide adequate responses, simulating what appens in the biological model.

Some of the functions that MDS Control is capable of analysing:

- Possibility of defining multiple areas of analysis in the field of view
- Identification of transit and/or occlusion on predetermined areas
- Tracking and classification of moving targets
- Shape learning and recognition
- Color analysis
- Direction
- Speed
- Transit counting
- Added/removed objects
- Timer associated with events
- Logical relations between events (and & or)
- Reporting missing events

Response functions of the System:

- Sending remotely the event string
- Storing in a database all the data generated by each event (color, direction, coordinates (x-y position in the field of view), etc.)
- Sending the event to pre-programmed email addresses
- Integration with PTZ cameras and automatic movement based on the events generated by the System
- Integration with automation controller for inputting/outputting information using external sensors and devices
- Statistical analysis and real time reporting of the information generated by the system
- Association of the event record with a 24/7 video recording
- Calendar: programming days/hours of activity of the System

WEB APPLICATION

The events provided by cameras and sensors are analysed by the System and georeferenced in a web user interface, accessible through the Internet.

Security operators will be able to immediately access the live feed. An effective and flexible tool capable of supporting any decision regarding the event.