



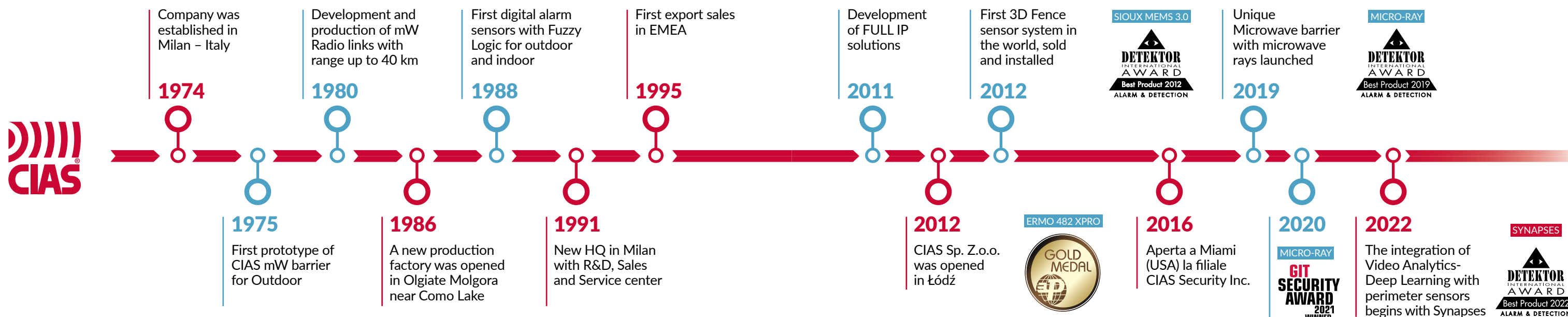
PERIMETER PROTECTION SINCE 1974



CIAS – OUR STORY

In 1974, three friends – Vincenzo De Astis, Giuseppe Leonardi and Bruno Gasparini – founded CIAS in their small workshop in Milan, Italy. By inventing the Fuzzy Logic analysis applied to digital microwave barriers, they revolutionized the **outdoor perimeter protection** standards. This cutting-edge technology applied to detection systems, along with constant focus on **Research & Development** in the years, was brought worldwide thanks to the early internationalization strategy of the company. In the late 90's the second generation of entrepreneurs Fabrizio Leonardi and Raffaele De Astis have taken over the baton from the founding fathers, increasing **CIAS international character** and proudly consolidating the brand as a flagship of Made in Italy in the security market.

CIAS maintains a continuous direct relationship with customers also through an **intense program of training courses**, online and in-person, and constant participation in **exhibitions worldwide**.

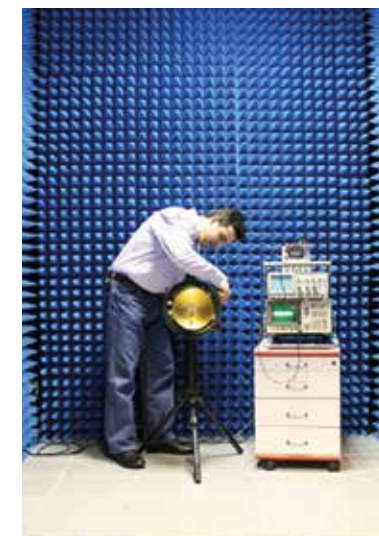


CIAS – HIGH TECHNOLOGY, EXTREME SECURITY



CIAS products and solutions are distinguished by:

1. A **high level of technology**: the sensors can be configured and managed remotely via electronic functions integrated into the software, they also have the “intelligent” ability to discriminate between real intrusion alarms and environmental factors why use an analysis of the **digital signal based on Fuzzy Logic algorithms**, i.e. typical behavioral patterns, which minimizes the number of false alarms.
2. **High quality**, certified at the highest levels by the main control bodies and in most part of the countries. Their compliance with the most important regulations is the result of the severest tests, carried out at laboratories in Italy and around the world - such as IMQ, CETECOM German, and the FCC and IC in North America and Canada.
3. Since 2012 our perimeter systems have been **over IP with Cybersecurity criteria**. In 2022 we went further by developing SYNAPSES, a new “Super Sensor” system with embedded AI, which maximizes detection performance by integrating our detection sensors with the Video Analysis and solving the challenge of increasing the security level of the entire plant.



CIAS INTERNATIONAL REFERENCES



GOVERNMENT

- Prisons, correctional facilities
- Critical infrastructures and utilities
- Banks, museums, archeological sites



MILITARY

- Army & Police forces
- Headquarters
- Ammunition depots
- Military bases



TRANSPORTATION

- Airports
- Ports
- Trains / Subways storage areas
- Parking lots



INDUSTRIAL

- Factories
- Logistic hubs
- Data centers
- Chemical Plants



ENERGY

- Nuclear Power plants
- Oil & Gas
- Generating Stations & substations
- Wind and solar farms



RESIDENTIAL

- Private villas
- Vip residences
- Royal palaces
- Embassies



PERIMETER PROTECTION SOLUTIONS

MICROWAVE BARRIERS



Microwave barriers are the most reliable and safe intrusion detectors used for outdoor perimeter protection. High frequency microwaves pass from a transmitter to a receiver, creating an invisible volumetric protection wall. When the receiver detects a difference of condition within the area of protection, a detailed analysis of the digital signals patterns is performed by means of **Fuzzy Logic** algorithms, to determine if the disturbance is due to a real intrusion and provide a reliable alarm information. Our premium product is the 3rd generation of **ERMO 482X Pro 3.0, with ranges from 50 to 500 mt, IP&PoE** for integration in larger security systems.

Other models are **MANTA 50 & 80 m**, digital Fuzzy Logic Barrier with planar antenna for shorter segments, and **CORAL PLUS 100 & 220 m** digital barrier with peculiar shield-shape cover and all-inside cabling, very suitable for industrial and residential applications.

LINEAR MICROWAVE BARRIERS



CIAS labs developed this @evolutionary bistatic barrier **with linear microwave rays in a column design**, unique of its kind in the market. The idea was born looking for an alternative to infrared rays, normally used to protect very narrow corridors but by nature vulnerable to climatic conditions and needing frequent maintenance and heaters that increase drastically the consumptions. **MICRO-RAY** incorporates the advantages of narrow beams typical of the IR beams barriers without their weather and consumption limits.

MICRO-RAY, 100 m range, provides a linear ray 40 cm Ø, covering narrow areas from 1 m width, but offering at the same time total immunity to even extreme conditions (such as harsh weather, temperature, headlights glare, solar reflections, fog), reduced power consumption (no heaters needed) **IP&PoE** available, no dead-zones, extremely easy calibration, and cleverly managed by Fuzzy Logic algorithms for a very low false alarm rate. Available in 3 heights with up to 4 rays kits, each with independent alarm management. According to their position inside the columns, **a pre-set is suggested for each ray by default**, for detecting the most typical intrusion forms, such as jumping, sliding, slow or fast running.

Interruption of very narrow mW rays enhanced with **Fuzzy Logic** analysis, scalable solutions with different heights of columns, different number of rays, several presets of time intervention, new aesthetic with light grey covers and very small power consumption, are just few of the highlights of this revolutionary outdoor system.

SUPER SENSOR AI - EVOLVED VIDEO ANALYTICS



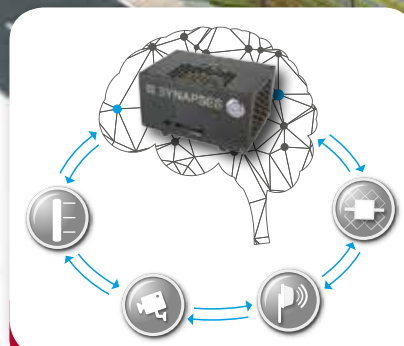
SYNAPSES is the self-adaptive multi-sensor system with Video Analytics and Deep Learning criteria that increases the performance of the perimeter system. Thanks to the AI on board this "super-sensor" is capable to harmonize the functionality of the entire anti-intrusion solution of the external perimeter. SYNAPSES **performs an analysis distinguishing the presence of different typical objects in the video stream** (such as man, car, truck, train etc.), informing the sensors associated with each individual area in order to increase or decrease their detection thresholds, significantly **reducing the NaR** (Nuisance Alarm Rate) and **increasing PoD** (Probability of Detection) in perimeter protection against intrusions.



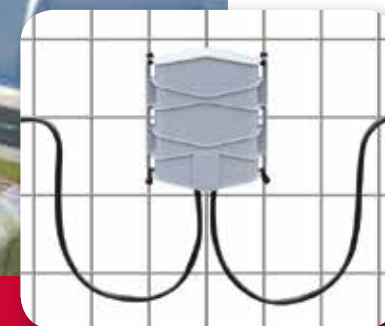
MICROWAVE BARRIERS



LINEAR MICROWAVE BARRIERS



VIDEOANALYSIS



FENCE PROTECTION



FSK RADAR

INTEGRATED OVER IP WITH:



FENCE DETECTION SYSTEMS



CIAS portfolio includes **solutions which allow to instrumentalize the fence** to detect climbing, cutting, removing and lifting attempts.

Along with the offer of traditional systems, like fiber optic sensor like **APACHE** and magnetophonic cable like **BLACK-FEET**, CIAS developed an innovative fence sensors solution based on **MEMS** technology, **IP&PoE** native and with **Fuzzy Logic** analysis **SIOUX PRO2**, which covers **1400 m** with 80 logic zones, pinpointing 1m, and performing Redundancy function very often necessary for high risk sites. The **mechanic 100% screwless and Plug&Play** make it very easy to install and maintain.

RADAR



MURENA CPT+ monostatic outdoors doppler **sensor series, 12-24 m & 12 m curtain version, also ATEX**, are suitable both for the protection of residential buildings (eg. façades, entrances, balconies) and for high risk sites, covering dead zones or specific spots in perimeter installations.

Those Radars are capable to retrieve crucial information such as **size, speed, distance and direction of the intruder**.

Furthermore, this **Fuzzy Logic** mW sensor features a **short and long range cutoff** setting in order to fit in the environment of each site and adapt to the surroundings, avoiding for example to create alarms for the movements of small or big targets nearby the detector or at a defined distance from it.

INTEGRATION



IB-System IP is **CIAS' "End to end solution" for Smart alarm management**. It is a virtual cabling system able to retrieve, with continuous polling, the status of all the sensors in the field and to promptly signal alarms, tamper, fault and no response for each one. The system allows the optimization of the information collected and at the same time remote set-up and maintenance of the devices from the control room. The **status of the perimeter** so collected, **can be displayed on a synoptic interface or a map, through a seamless integration** with the major supervision platforms of the market.

IB-System IP is:

- **SAFE**: AES128 **cryptography** between devices and control center
- **FAST**: only 500ms to **poll up to 1280** different CIAS IP **devices**
- **ADAPTIVE**: it can be integrated over the **major PSIM and VMS platforms**



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