SensorTec

DEVELOPING & MANUFACTURING
INTELLIGENT VIDEO MONITORING SOLUTIONS

SECURITY BEYOND LIMITS

2023
COMPANY PROFILE

SensorTec

SECURITY BEYOND LIMITS

In the few years since 2000, SensorTec has grown into an international company that it is today. We are among the most innovative technological companies in the world, developing and manufacturing intelligent security and monitoring solutions specifically for largescale projects for military, law enforcement, public authorities and private sectors.

SensorTec believes, serving the needs of customers efficiently can only be successful if they receive complete solutions. In order to achieve this, we design and manufacture all the critical components of our systems, including hardware, software and embedded computer vision. Our entire product range is developed and manufactured in accordance with the highest quality requirements.

SensorTec provides integrated solutions, which combine a wide range of devices, sensors, and software, such as surveillance radars, surveillance cameras, video analytic software and C3. All of our solutions are designed to work in harmony and provide a comprehensive multi-layer approach to deliver situation awareness and interactive intelligence.

KEY FIGURES

200+	Technical Support Engineer and Technician.

3	Branche offices.
	HQ and Manufacturing Facilities: Cambridge, UK. Budapest, Hungary.
	Sales and Technical Support Office: Dubai, UAE.

SensorTec

SYSTEMS AND SOLUTIONS

BORDERS
SURVEILLANCE AND SECURITY

CRITICAL INFRASTRUCTURE
SURVEILLANCE AND SECURITY

AIRPORTS & SEAPORTS
SURVEILLANCE AND SECURITY

SensorTec

TRAFFIC MANAGEMENT
AND VIOLATION DETECTION

SAFE & SMART CITY
SURVEILLANCE AND SECURITY

STADIUMS & CROWDS
SURVEILLANCE AND SECURITY
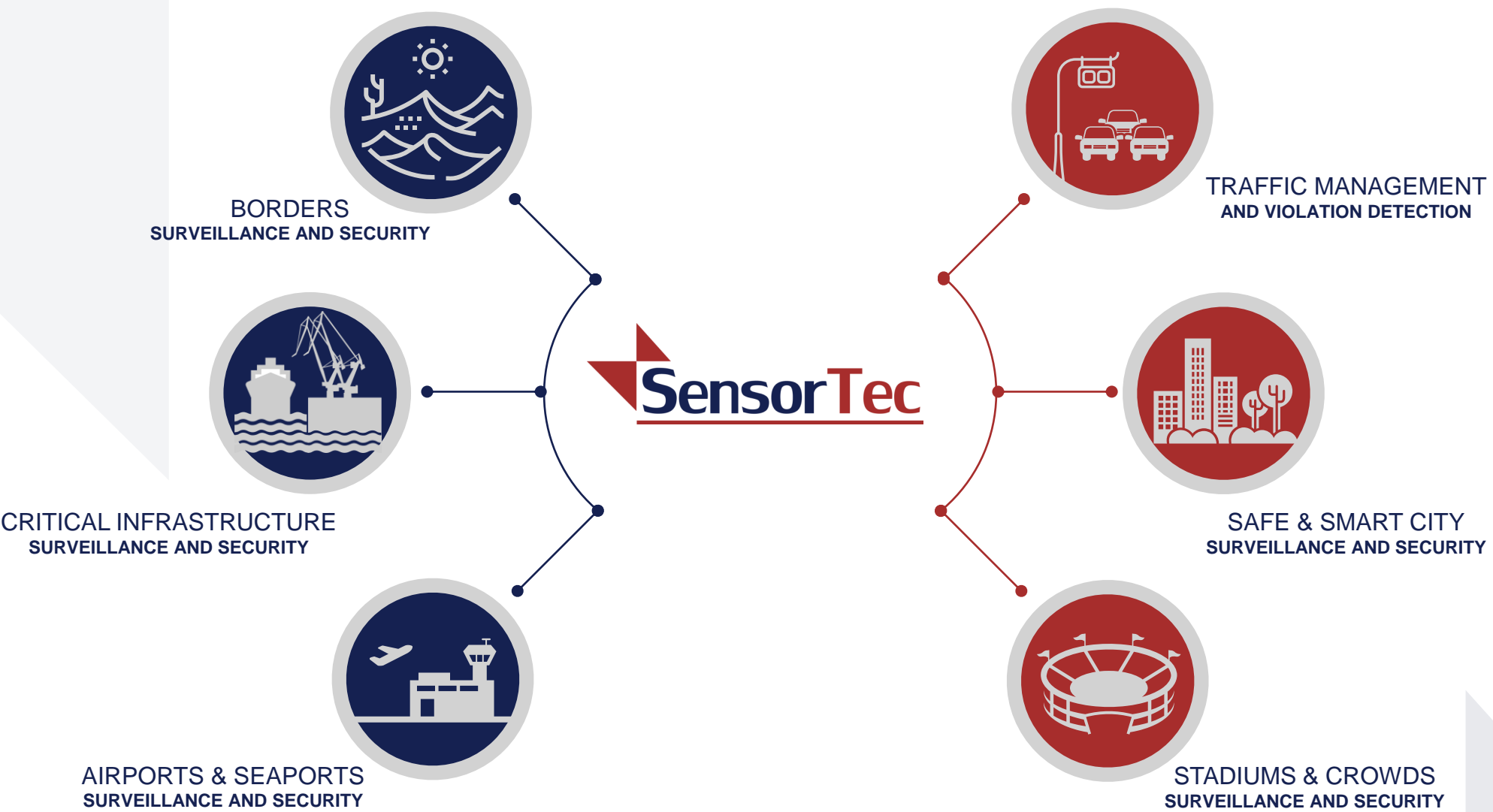
SELECTED INTERNATIONAL REFERENCES

BORDERS SURVEILLANCE AND SECURITY
Egyptian Land Borders - Sinai, Egypt.
Kuwaiti Sea And Land Borders - Kuwait.

AIRPORTS SURVEILLANCE AND SECURITY
Hungarian Airport - Hungary.
Mumbai Airport - India.
Turkish Airport -Turkey.
Alexandria Airport - Egypt.

CITY SURVEILLANCE AND SECURITY
Luxor City Surveillance - Egypt.
Sharm El Sheikh City Surveillance - Egypt.
Cairo Monitoring System - Egypt.
Port Saeed City Surveillance - Egypt.

CRITICAL INFRASTRUCTURE SECURITY
Presidential Palace - Kuwait.
Ministry of Defense - Egypt.
Sea Ports - Kuwait.
Egyptian Monument Authorities - Egypt.
Saudi Arabia Embassy - Geneva.

TRAFFIC LAW ENFORCEMENT
Cairo Traffic Management And Violation Detection - Egypt.
Traffic Management - Armenia.
Traffic Management - Hungary.

STADIUMS AND VENUES PROTECTION
Manchester City Stadium - UK.
Beşiktaş Stadium - Turkey.
Türk Telekom Arena - Turkey.
Atatürk Olympic Stadium - Turkey.
Fenerbahçe Şükrü Saracoğlu Stadium - Turkey.
Several Stadiums - Russia.
Manarat Al Saadiat Cultural Museum - UAE.
Pyramids Touristic Area - Egypt.

SensorTec

TECHNOLOGIES THAT MAKE US UNIQUE

PANORAMA TECHNOLOGY

4K or even higher resolution video technology has become common in video surveillance nowadays. But when it comes to monitoring large scale areas their coverage capabilities are nothing compared to the efficiency of high-end panorama cameras. SensorTec developed a leading-edge, multi-sensor panoramic technology, providing 200-320MP image resolutions with 20 FPS video stream and the display technology that makes it possible to seamlessly utilize the full resolution during monitoring. We developed a unique stitching technology that geometrically merges images at the image borders resulting in a contiguous panoramic image just as if it were taken by a single sensor camera. All the grouped sensors take their images synchronized, which ensures a glitch free display throughout the whole panoramic image. Thanks to the special stitching technology zooming and panning are seamless at the stitching borders as too.

COMPUTER VISION TECHNOLOGIES

SensorTec is among the leading pioneers who determine the future if this industry. We create high-end systems that relies on not just extreme high resolutions, but advanced computer vision technologies.

Human
Threatening
46.772059, 19.154010
Distance: 5,580 m
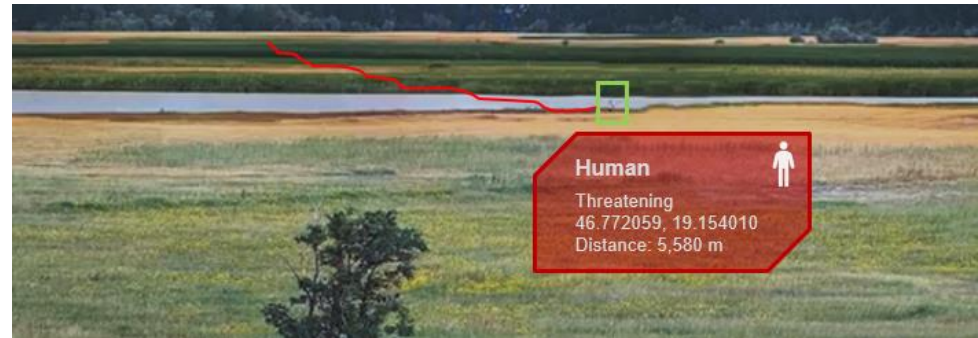
That is how our cameras have evolved further and have become intelligent visual data sensors. We developed embedded Video Content Analysis algorithms which detect, classify and track different types of objects and are also able to automatically perceive complex situations based on motion behaviour and motion prediction analyses.

Learn more about
SensorTec Panorama Technology

TECHNOLOGIES THAT MAKE US UNIQUE

DUAL VISION TECHNOLOGY

The SensorTec Dual Vision Panorama Camera is developed to monitor vast areas in challenging environments, specially at border areas without any artificial lighting system. The camera delivers both thermal and visible light images, which are mapped to each other. This way the camera efficiently operates in pitch black light conditions and also in a wide range of weather conditions.

MULTISENSOR TECHNOLOGIES

SensorTec multisensor systems are equipped with a day and night vision system which allows observation in total darkness and under all weather conditions even in fog, rain or snow. These systems consist of a thermal camera and a day-night high resolution camera with very high optical zoom placed on a movable pan-tilt platform.

40° 320MP
Visible and Thermal Panorama Camera.

35KM (VD)
Cooled Multi-Sensor Camera
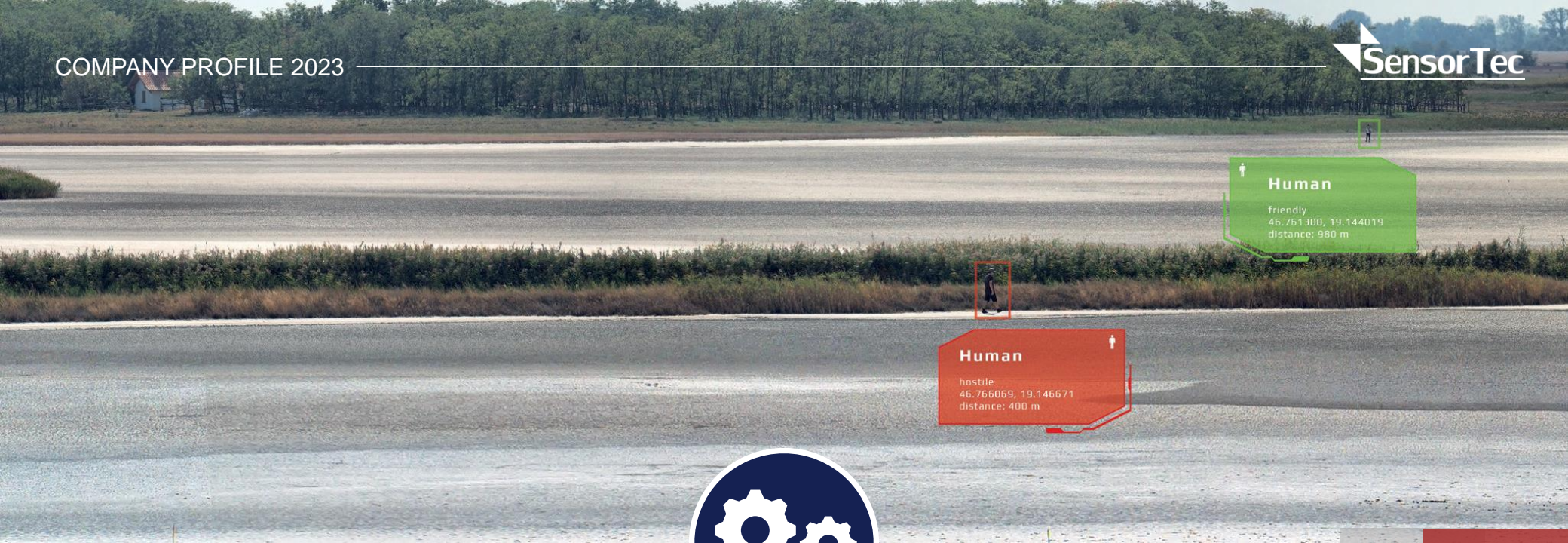
Learn more about
SensorTec Dual Vision Technology

# INTEGRATED SOLUTIONS

BORDER SURVEILLANCE SOLUTIONS

MTDU TECHNOLOGY

SensorTec MTDU realizes a complex system that leverages different surveillance technologies in order to overcome monitoring gaps. Basically the solution provides intelligent video surveillance with extreme high-resolution visible light panorama that is supplemented with a thermal panorama camera module. The solution also provides a multi-sensor camera module along with a 3D Radar, Sensor Fusion and Computer Vision Technologies for automatic functions, on-site recorders for storage and data transmission and Command and Control Center software for monitoring.

SensorTec employs a system referred to as the Multiple Technologies Detection and Tracking Unit (MTDTU), which provides the ability to track multiple targets simultaneously. MTDTU uses 3D Tracking Radar, Long-range Thermal Camera, Long-range Visible Day/Night Camera, Panoramic Camera to enable the detection, tracking, identification, and classification of illegal border entries.

Learn more about
SensorTec MTDU Technology

SensorTec
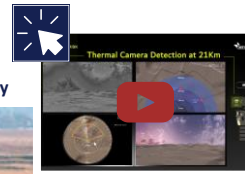
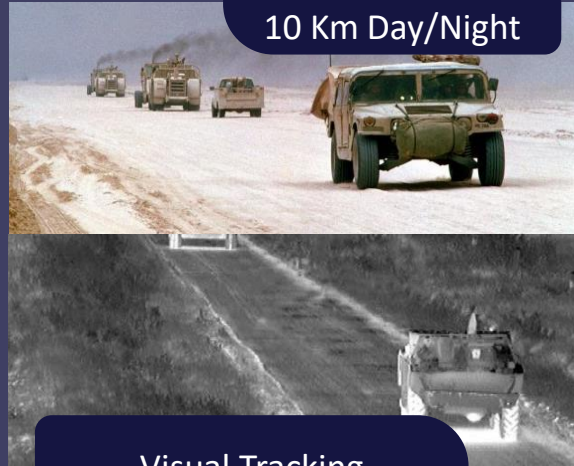# BORDER SURVEILLANCE SOLUTIONS

3D RADAR DETECTION

20 Km

Location Map

Early object detection, tracking and identifying location, speed, size and direction.

VISUAL TRACKING

35 Km Thermal
10 Km Day/Night

Visual Tracking

Follow the progress or movements of selected targets.

PANORAMIC VCA VIEW

1 Km

Panoramic View

Multiple targets detection and tracking with full VCA.

MOBILE (IN-VEHICLE) SURVEILLANCE SYSTEM

Mobile Multi-Sensor Surveillance Systems can be used for monitoring smaller and larger areas of land or sea. They offer high mobility and good comfort for the operators, easy upgrading of the system with additional equipment. They are used for border surveillance, perimeter monitoring and other surveillance missions. These vehicles can be connected to a command centre and provide a vital component to a complete security/surveillance solution.

Mobile Surveillance systems with different type of sensors
Long Range Multi-sensor (Day/Night And Thermal) Camera.
Precise 3D Tracking Radar.   Digital Compass, GPS.
Digital Map With Target Position.

Learn more about
SensorTec Mobile Surveillance System

ANTI-DRONE SYSTEM

A compact air defence solution against drones/UAV's that was developed and tested for border protection projects. Radar, long range observation system and high power radio frequency jammer are able to detect, recognize, identify and soft/hard kill flying objects. System is built to operate 24/7 continuously and it can be installed as fixed, portable or mobile solution. Integrated 3D radar works with the latest generation solid state technology electronic scanning 360 x 90 degrees. Thermal camera gives the system long detection, recognition and identification range.

Mobile Solution
It can also be integrated into vehicles for coverage of different areas.
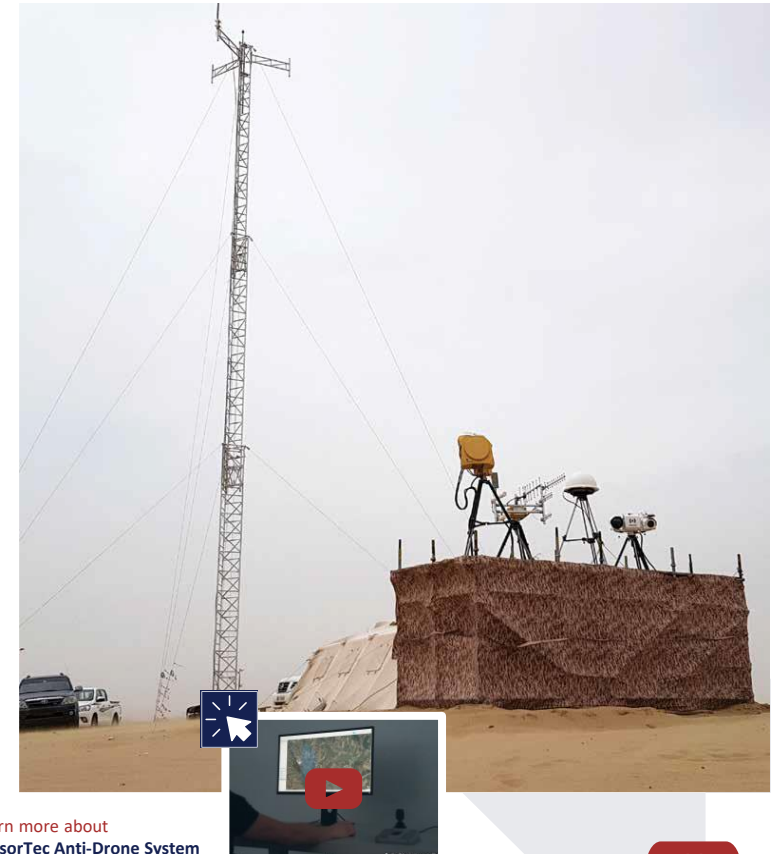
Learn more about
SensorTec Anti-Drone System

CRITICAL INFRASTRUCTURE SOLUTIONS

Learn more about
SensorTec Critical Infrastructure Solution

The solution is developed to efficiently protect critical infrastructure sites, such as nuclear and power plants, oil refineries, ports and other industrial facilities from perimeter intrusions and internal threats. SensorTec intelligent Video Content Analysis (VCA) and Real-time Decision Making Support (RTDMS) ensure a safer environment and smooth infrastructure operation. They help minimize false alarm rates and also increase situational awareness.

MULTIPLE TECHNOLOGY TRACKING AND DETECTION

SensorTec integrated solution employs different security sensors and systems that take advantage of the strengths of multiple technologies:

Day/Night Video Surveillance.
Thermal Imaging Surveillance.
Perimeter Sensors.
Intrusion Detection Systems.
Electronic Access Control Systems.
Advanced Tracking Radars.

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CRITICAL INFRASTRUCTURE SOLUTIONS

SensorTec specializes in the design of multi-layer protection based on the integration of various sub-systems

PERIMETER PROTECTION
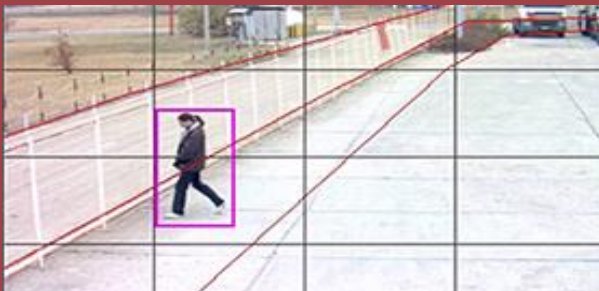
Perimeter sensors and virtual fencing.
Cameras (Video Motion Detection, PTZ, ….).

OUTDOOR PROTECTION

Vehicle tracking system, surveillance radars.
Special surveillance systems.

INDOOR PROTECTION

Passenger identification systems.
Access control systems and various identification technologies including biometric identification.

CRITICAL INFRASTRUCTURE SOLUTIONS

PANORAMIC E-GUARD

PANORAMIC E-GUARD is a fully autonomic homeland and asset protection system. It is designed to detect and recognise all intruders in a designated area. Once an intruder is detected the system gives clear instructions how to move away form the protected area. In case intruder does not follow given instructions, system goes into protect mode and neutralizes the intruder in the safest way possible, avoiding any long term damage of the intruder.
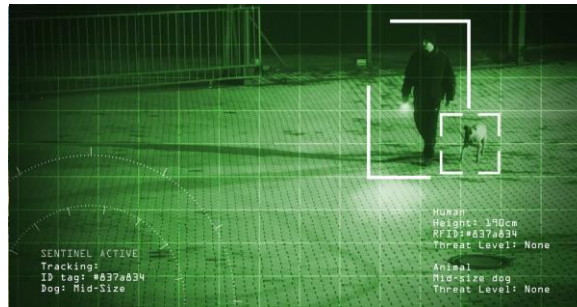
E-GUARD CAMERA
Coverage: 100m

200MP 180°
PANORAMIC CAMERA
Coverage: 1000m

Features:

200MP 180° panoramic view.
Intruder detection.
Authorised personnel recognition.
Animal friendly.
Safe and cost effective.
24/7 operation.
Plug and Play.

Neutralization System:

Range: 50-100m.
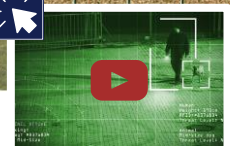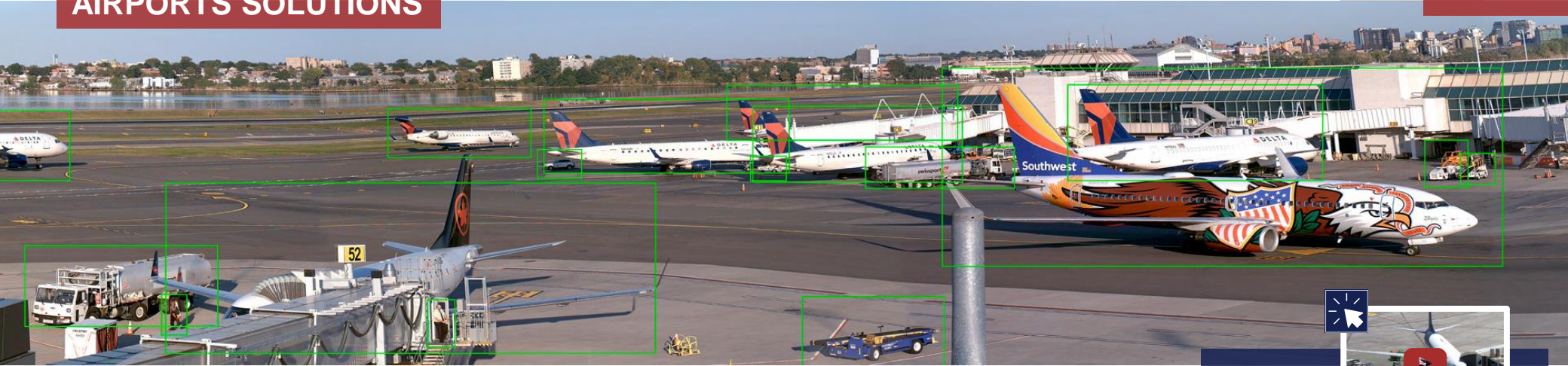Ammunition: Nylon / Teargas.
Calibre: 0.68 / 0.5 / 0.43.

Learn more about
SensorTec E-GUARD Solution

# AIRPORTS SOLUTIONS

Learn more about
SensorTec Airport Solution

SensorTec Airport Solution brings extended vision and computer-based intelligence into airport monitoring. It provides improved control over ground operations and also assists to prevent minor and major incidents. The solution delivers the best-in-class panoramic video monitoring aided by advanced computer vision technologies. Utilizing the Logipix VCA functions, customers earn accurate object tracking, immediate alerts of violations and possible incidents, furthermore automatic calculations on aircraft ground operation times..
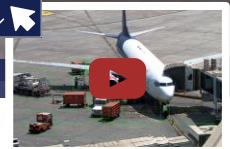
VCA ASSISTED OPERATION

SensorTec Solution Module is available in an advanced version, wherein automatic Video Content Analysis assists the registration of some operations.

The SensorTec VCA can detect the presence and classify different objects. It can accurately track the motion of airplanes and various ground equipment. Depending on the applied resolution and chosen point of view the algorithms can detect even complex processes.
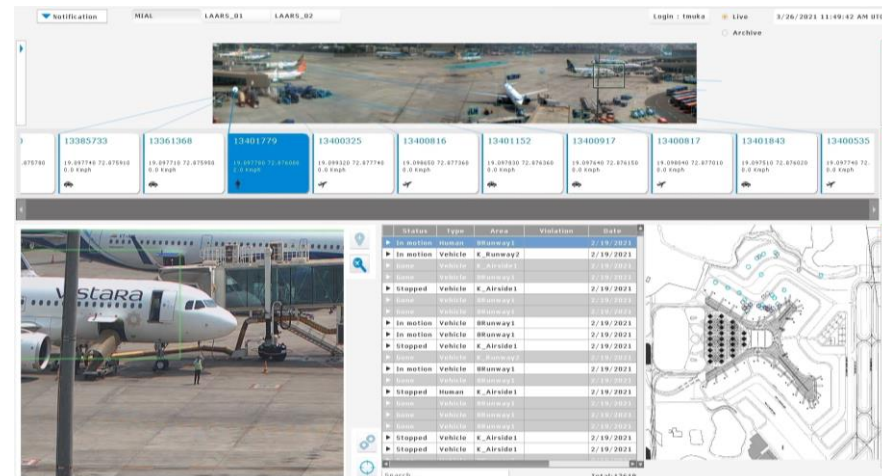
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AIRPORTS SOLUTIONS

SENSORTEC AIRSIDE AUGMENTED REALITY SOLUTION

Learn more about
SensorTec AAR Solution

- Intelligent airside video monitoring and ground handling management support using advanced computer vision technologies.

- Monitoring with 200-320 MP Panorama Cameras integrated wit PTZ Cameras.

- VCA-based detection, classification and tracking of both cooperative and non-cooperative objects.

- Informational object labels, detailed object list and interactive map.

- Geofencing and Virtual fence functions with applied airside rules and automatic ground traffic enforcement.

- Automatic LND & TOF registration.

- Remote maintenance, built-in self-cleaning, cooling and de-icing systems for hardware components.

SEAPORTS SOLUTIONS

SensorTec Vessel Traffic Management Solution provide intelligent tools and digital technologies for perfectly coordinated vessel traffic in ports and efficient port operations. With our integrated, global approach and innovative data handling methods, we are able to ensure seamless maritime traffic control, vessel, and coast monitoring and provide tools to ensure Just-in-Time arrivals. We enable eye-to-eye collaboration between ships and shores and offer coast-to-coast monitoring and advanced decision support.
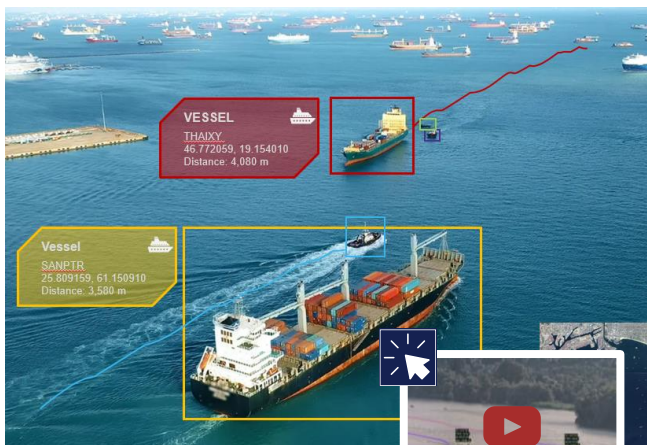

Learn more about
SensorTec VTM Solution

SENSORTEC VESSEL TRAFFIC MANAGEMENT SOLUTION

SensorTec developed an intelligent solution that monitors the entire seaport area with enormous resolution. It automatically detects, classifies and tracks both cooperative and non-cooperative objects above and under the water and guides the attention of operators and controllers to handle maritime and ground processes on the port more efficiently.

Monitor: comprehensive monitoring and control of maritime areas and process data to create common operational pictures.
Alert: Detection and prevention of illegal activities such as underwater cables or pipelines vandalism, piracy, terrorism, smuggling, drug trafficking, illegal fishing.
Respond: advanced decision supports and communication.

SAFE & SMART CITY SOLUTIONS

Learn more about
SensorTec Safe & Smart City Solution

SensorTec technologies help cities achieve a more sustainable and livable environment. The solution provides automatic traffic violation detection functions and also surveys large public areas, streets and roads. With the smart solution of SensorTec, cities can progress and ensure the safety of their traffic and the security of people even in the densest urban environments.

KEY ELEMENTS

Crime Deterrence/Prevention
The primary goal of the smart city surveillance solution is to enhance public safety through an adequate collection of events which might have otherwise been missed because of limited law enforcement workforce.

Collect Evidence
Video surveillance becomes the primary method of gathering proof of crimes, and ascertaining which parties were involved.

Intelligent Traffic Surveillance
Detects real-time changes in traffic flow and adjusts timing parameters continually to match changing traffic patterns and achieve optimised operation.

**Complete Violation Management Workflow**
Parking rule violation, Video content analysis, Stop sign violation, Red light violation, Bus lane violation, Speed Detection.

SAFE & SMART CITY SOLUTIONS
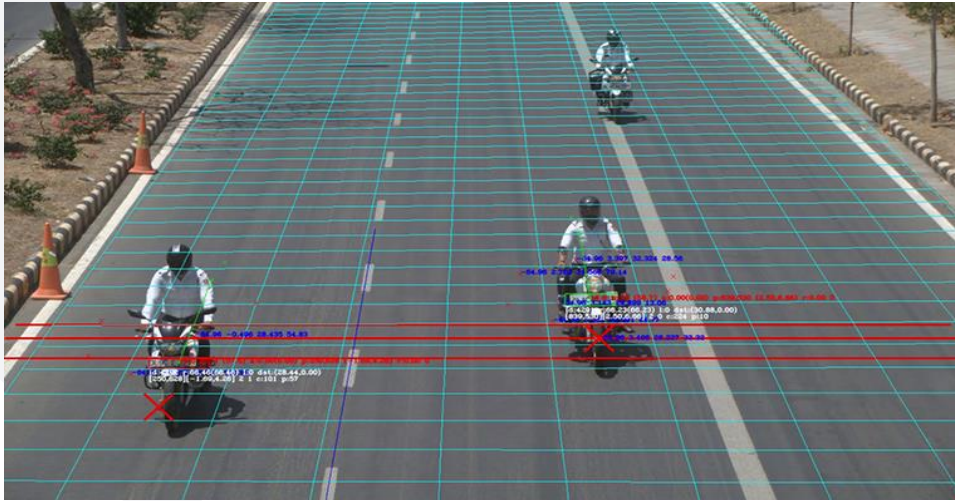
TRAFFIC ENFORCEMENT

One goal of the SensorTec solution is to help maintain security in everyday traffic by accurately detecting and recording several types of traffic violations and providing irrefutable evidences for local authorities. As drivers know that all their violating actions could be captured, they are more likely to comply with traffic rules. This eventually results in smoother traffic flow. As less violations appear, the number of potential accidents and traffic jams can be excessively reduced.
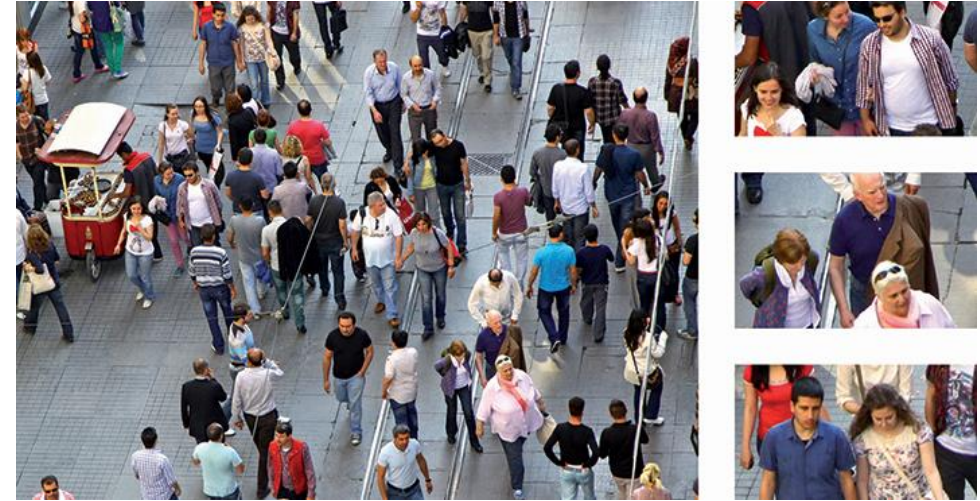
SMART CITY SECURITY

The other goal of SensorTec Safe and Smart City Solution is to provide intelligent city video surveillance. The system is able to efficiently surveil large-scale areas 24/7 and help cities maintain security on their streets. Thanks to real-time information sharing, operators can react quickly on any suspicious activity and proper authorities can take efficient security measures. All violent and criminal activities are captured on high-resolution security footage, wherein face recognition is possible even at far distances. These recordings can be used as irrefutable visual evidences on demand.

TRAFFIC MANAGEMENT AND VIOLATION DETECTION SOLUTIONS

Learn more about
SensorTec Traffic Management Solution

The primary goal of SensorTec Traffic Violation solution is to help manage the traffic flow and to maintain the security of daily traffic by automatically detecting and recording various types of traffic violations around the clock. The solution provides full violation management workflow from automatic detection till creating a compiled violation package that can be used by proper authorities.

AUTOMATIC VIOLATION DETECTION

SensorTec developed a complete system that automatically detects traffic violations. The detection methods rely on Video Content Analysis, multi-megapixel camera images and high-end 3D radars. Traffic violations are detected with unmatched accuracy both day and night, as advanced IR Laser Flashes works synchronized with the cameras.

Detectable traffic violation types:
Overspeed | Stop sign | Red light | Bus lane | Wrong-way | No left turn | Parking

STADIUMS & CROWDS SOLUTIONS

SensorTec ensures safer environments in stadiums. The solution increases security operational awareness by covering the entire seating area with 120-320 MP panoramic videos wherein every individual is recognizable. It helps operators react quickly to suspicious situations, prevent or defuse outbursts, and efficiently investigate prior incidents.

- Keep stadium crowds under surveillance before, after and during events.

- Providing a high resolution level to identify all spectators in and around the venue.

- High-resolution coverage of the entire seating area with only a few 120-300 MP Virtual Panorama Cameras.

- PTZ and Panorama camera cross-mapping that makes it possible to control PTZ cameras selecting the area of interest on the panoramic image.

- Advanced zoom functions to seamlessly track individuals.
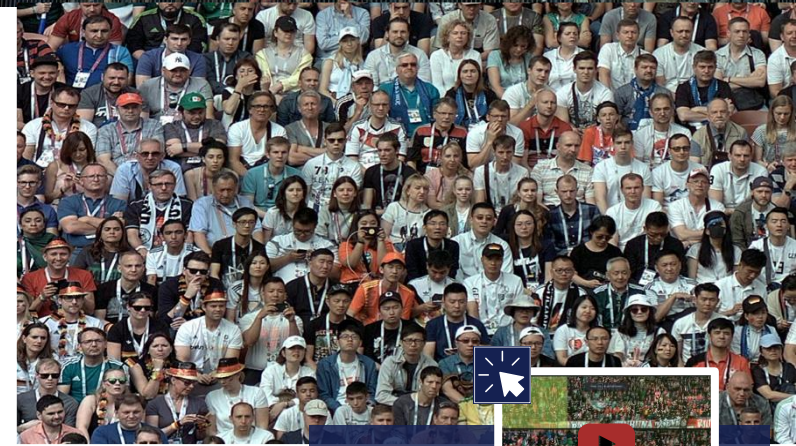
Learn more about
SensorTec Stadium Solution

SensorTec

KEY PRODUCTS

PANORAMA CAMERAS

320MP 40°
Dual Vision Panorama Camera
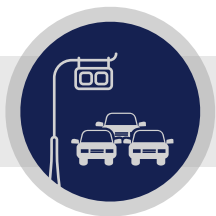

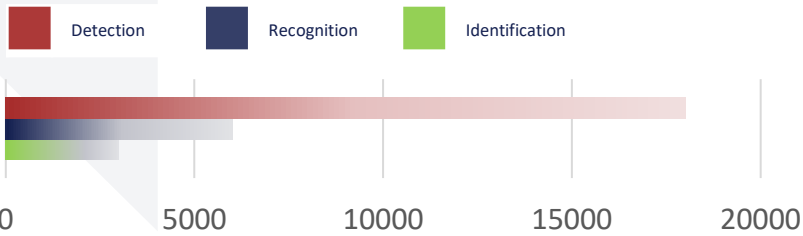**320MP 40°**
Panorama Camera

200MP 180°
Panorama Camera

PANORAMA CAMERAS

Panorama Camera	Human (23 ppm)	Light vehicle (12 ppm)	Heavy vehicle (8 ppm)	Airplane (2 ppm)
200 MP 180°	600 m	1,170 m	1,760 m	7,048 m
320 MP 40°	3,000 m	5,900 m	8,860 m	35,400 m
320 MP 40° DUAL VISION (Thermal Sensor)	3,000 m	5,900 m	8,860 m	35,400 m

LONG RANGE MULTI-SENSOR CAMERAS

Un-Cooled Multi-Sensor Camera

Cooled Multi-Sensor Camera

Detection   Recognition   Identification

Detection   Recognition   Identification
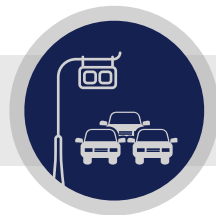
SensorTec
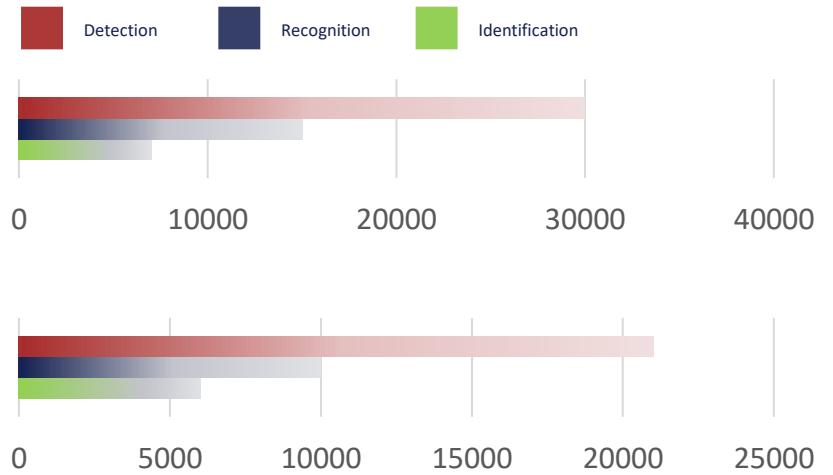
LONG/MEDIUM RANGE PTZ CAMERAS

10 km Day, 5km Night
Long Range Laser Camera

5Km/3Km/1Km
Day/Night Laser Camera

30X 2MP
PTZ Camera

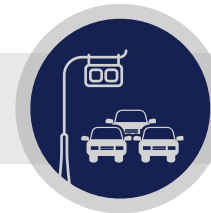# HIGH MEGAPIXEL CAMERAS

IP Indoor, Outdoor, Submersible and Ex-Proof Cameras.
Type: Dome, Fisheye Dome, Mini Dome, Bullet, Mini Bullet and Box with Lens.
Resolution: 2/3/4/5/8/12 MP.
Lens: Fixed, VF and Motorized VF.
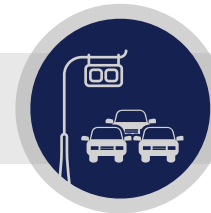
NETWORK VIDEO RECORDERS

Outdoor Network
Video Recorder

Industrial Smart
Network Video Recorder

Smart Network
Video Recorder

SENSORTEC SOFTWARE

SENSORTEC C2 COMMAND AND CONTROL CENTER

SensorTec Command and Control software package developed for land, navy and sea applications. With its simple and effective design, SensorTec C2 Software is an efficient and easy to use tool. Server functions as a connection point for all subsystems (Day/Night cameras, Thermal cameras, Radars Pan-Tilt etc.) and as a distribution point for data System parameters, diagnostics, imaging etc.) to all connected clients.

SENSORTEC C3 COMMAND, CONTROL AND COMMUNICATION CENTER

With server functions SensorTec Command, Control and Communication Center acts as a connection point for all subsystems (Day/Night cameras, Thermal camera, Pan-Tilt etc.) and as a distribution point for data System parameters, diagnostics, imaging etc.) to all connected clients.

GIS Map Software Main Features

Map image streaming.
3-D Map navigation.
Map layer management.
Angle, distance area measurements.
Custom Icons, Static marks, Targets, presentations.
Compass layer.

Viewport calculation based on terrain model - line of sight calculations.
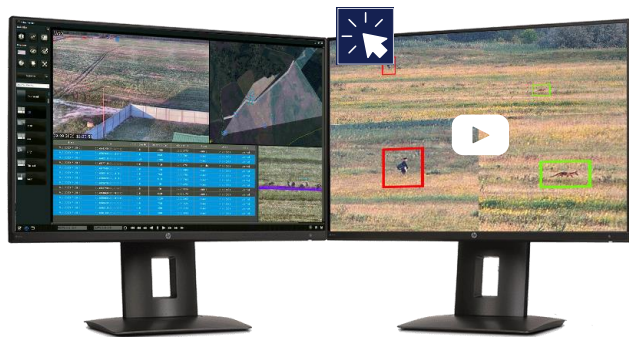Map Presets.
Map navigation.
3D support and full 3 slew to cue functionality.
KML/KMZ importing and searching by name(area, line, point).
Onscreen compass.

SensorTec C2
Command and Control Center

SensorTec C3
Command, Control and
Communication Center

SensorTec VMS
Video Management Software

WIMAX AND MICROWAVE SYSTEMS

A Complete Range of Wireless Solutions for Both PTP and PTMP Fixed Wireless Deployments.

SensorTec has a vast experience in the Wireless video surveillance market, SensorTec design , supply and implement a high reliable wireless security solutions for Border Security, traffic monitoring, ANPR, highway safety, city surveillance and many others.

SensorTec Wireless Solution boosting Easy installation and maintenance, Quick deployment, Flexibility and Scalability.
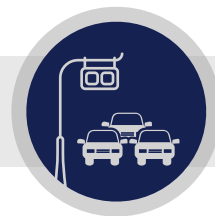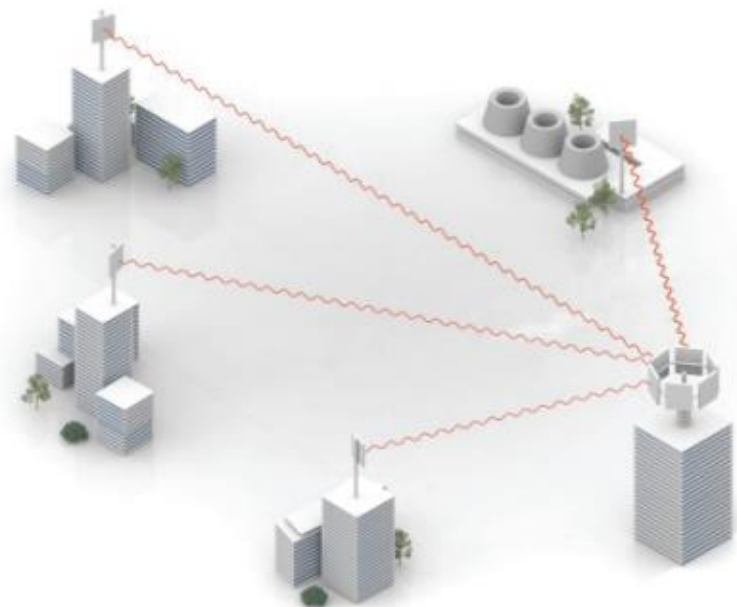
SensorTec

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