

# Live Awareness Platform





## Mobile LPR & Curbside Enforcement Solution

The mobile enforcement solution uses multicamera multi-sensor system that automatically recognizes and enforces rules in complex zones to detect vehicles out of compliance with local ordinance enabling parking officers to enforce the infraction on-spot or send ticket by mail.

In addition to the collection of licence plates, our solution also collects a range of additional data, including context images that show if the vehicle is occupied, as well as a clear image of the vehicle's valve stems. Our solution can provide the GPS location of the detected vehicle, and specify which business rule the vehicle is in violation of without any input from the operator.

## What this solution can do for you

#### Operational Productivity

Officers can cover parking hotspots up to 10 folds higher without any breakdown or fatigue.

#### Modular Setup

Versatile design of the hardware allows compatibility with all major vehicle types and easy transfer of POD between vehicles.

#### Data Block

Displays the captured date, time, camera, and operator to serve as a valuable resource for inspection and as evidence of any potential infringements.

#### Voice Command

Avoid distractions while driving and help drivers to quickly control the scanning sessions using voice commands.

### **Key Features**











Trigger less, video-based vehicle detection Resistant to harsh weather conditions

In-vehicle dashboard with live detections Vandalism proof deployment

Flexible Integration

## SenFORCE Mobile

SenSen's vehicle-mounted mobile enforcement solution consists of several critical proprietary software and hardware components. The modules are carefully chosen and packaged to meet the city's requirements. This modular approach allows us to deliver complete end-to-end solutions to meet all mobile enforcement needs.













# Curbside Management & Parking Occupancy

**SenPIC** is a camera-based monitoring and enforcement solution that digitalizes curbside regulations through unobtrusive visual sensors inserted into parking signs that automate complicated monotonous and laborious tasks using SenSen's end-to-end civic compliance & enforcement solution that empowers cities to manage their curb better and help to improve local ordinances.

Our solution detects real-time bay occupancy for vehicular traffic, monitors pedestrian and bicycle presence and collects data such as people counts, peak occupancy hours, double-parking, vehicle classification and other metrics while connecting the data to dynamic signage, allowing cities to make informed decisions to optimize curb usage and enhance urban mobility.

## What this solution can do for you

#### Collects Real-Time Data

Real-time data helps commuters find the available curbs easily and helps cities to manage the curb better.

#### Understand Usage

Analytics for the entire parking lot or by zone, observe changes over time or compare time periods, all on a customizable dashboard.

#### Evidence Package

Capture high-quality evidence to issue citations and deter future violations.

## Demand Forecast

Opportunity to uncover future demand patterns, optimize infrastructure accordingly and provide better parking experience.

## **Key Features**



Accurately monitors parking bays enforcement



Alerts on unauthorized parking or overstays



Available in edge, cloud, and hybrid deployment



Customizable reports in different formats

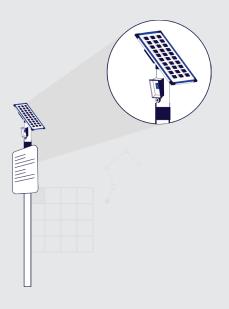


Additional add-on like vehicle make, model, color

# SenPIC Pole Sensors

A fixed and compact unit combining specialist camera hardware and software for a high-tech, all-in-one solution

Designed to simplify fixed deployment at an affordable price.





# Digital Parking Sign

Simplify the parking condition message by using a 'live' time-of-day display which could also include the 'next' parking condition provides a long overdue opportunity to declutter the cluster of traditional parking signs with a simplified information experience for drivers.

Say goodbye to deciphering complex parking signs and embrace the simplicity and efficiency of Digital Signs. Experience the future of parking signage, where clarity and convenience reign.







# Gated & Gateless ALPR Access Control Solution

SenSCAN is a highly accurate and affordable Automated License Plate Recognition (ALPR) solution consisting of patented software with intelligent algorithms and Al. It works with any off-the-shelf, low-cost hardware and has a cloud-based back office, enabling robust and highly accurate evidence generation for gated and gateless access control systems.

SenSen's gated and gateless ALPR access control system administers the entry and exit of the vehicle with our highly accurate license plate recognition using Al. Our solution detects fraudulent access, ticket exchange, or attempted vehicle theft and sends notifications to the parking operator. Our solution is flexible to integrate with any existing or new external systems.

## What this solution can do for you

# Improving Operational Productivity

There is reduced administration due to system automation service and having the ability to consume information in real-time.

## Connectivity and Integration

SenSen's state-of-theart back-office platform with seamless integrations with any external boom gates and permits systems.

#### Higher Enforcement Activities

Complete evidence packages are compiled with 99% accuracy reducing the need for litigation

# Streamline Enforcement Process

Real-time alerts and remote monitoring services with detailed and centralized access to Infringement data.

### **Key Features**



License plate detection & capture



Control any 3rd party boom gates



Integrations into any payment & permit software



Live dashboards, reporting & analytics



Alerts verifications alongside the permit data

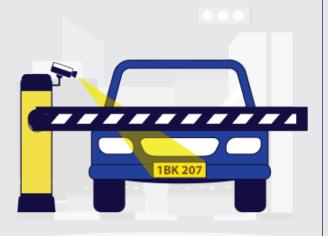
Positively transforming people's lives with Sensor Al

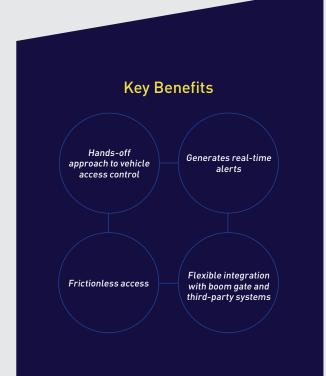
## Gated Access Control System •

SenSen's Gated ALPR access control systems integrate with existing boom gates/shutters and provide an added layer of location management with improved overall security infrastructure.

Our system supports and manages various kinds of vehicle access lists for real-time matching and alerting, allowing only authorized vehicles to use the parking lot.

Our solution effectively controls and manages unlimited whitelists, blacklists, scofflaw lists, etc.



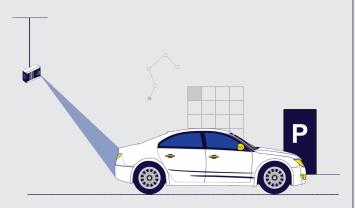


## Gateless Access Control System

SenSen's on-field system consists of a highly efficient and robust algorithm that detects all restricted vehicles entering the parking space to keep traffic flow and parking efficientand smooth.

Our product is a simple plug-n-play system in open space that allows universities to bypass expensive and time-consuming installation.

All entry-exit data is aggregated, and upon any violation such as overstay or non-permit parking, information is exported for ticket issuance.







# Smart Ports & Maritime Solution

**SeaPort AI** is an automated enforcement and safety enhancement portfolio designed to secure all corners of your infrastructure, optimize operations, and promote growth by enabling early detection of security threats to increase worker safety when they are performing high-risk tasks inside the vessel, including lashing operation on board vessel.

Our solution offers detailed insights into data collected from port sensors improving security with utmost stability and reliability meeting all your needs for monitoring the movement of personnel and cargo. Our solution can locate and track an accident or a vehicle of interest to swiftly determine the threat level of an event, based on quick access to your cameras' live video.

#### What this solution can do for you

## Around the clock perimeter safety

Track risk and assess events to improve compliance and mitigate intrusion threats.

#### Traffic Operation Enforcement

Ensure drivers follow stipulated traffic rules with real-time alerts & remote monitoring.

## Accurate Evidence Management

Accelerate post-event investigation and response to resolve intrusion & incidents faster.

#### Seamless Integration

Direct camera integration to detect violations or minimal latency and reliability.

### **Key Features**



Automated workflow



Object recognition



Pose estimation



Intuitive user experience



Camera agnostic

Positively transforming people's lives through Sensor Al

# Charting a Course to overall safety and operational efficiency

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- Detecting lashing/unlashing activities with single worker triggers alert
- Tracking personnel within a unsafe distance from spreaders
- Detect the vessel and apply the rules in dynamic background
- Detect container location and measurement
- Ensuring compliance with extreme row lashing requirements and PPE detection
- Pose estimation and direction of motion tracking

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- Detecting violations such as speeding, illegal turns, direction of travel and failure to stop at designated points
- Monitoring vehicle movements and ensuring adherence to traffic rules
- Detect and classified specific vehicle such as haulier, transporter vehicle and etc
- License plate recognition (ALPR)



## **Custom Al Solutions**

SenSen offers tailored AI solutions powered by the innovative Live Awareness AI Platform focused on delivering solutions that aligns with organization's unique business needs. With our pioneering technology, SenSen seamlessly integrate data from cameras and sensors in real-time, offering custom AI solutions to address your unique urban management challenges.

Our solution elevates the quality of life by tackling urban challenges and enhancing overall operational efficiency to help create safer environments for communities. SenSen's solutions have driven substantial transformation worldwide and offers a sustainable, fair, and equitable approach to urban development.

### What this solution can do for you

## Automated Workflow

Improved productivity with customised solution to automate tedious business operations.

#### Live Awareness Al Platform

State-of-the-art platform provides comprehensive understanding of your business environment

## Proven Expertise

Vast experience in delivering tailored and trusted solutions with reliable outputs creating significant tangible outcomes.

#### Lower Cost of Ownership

Reduce overheads by lowering energy, infrastructure, installation, and maintenance costs.

### **Key Features**



Flexible deployment option



Effective collaboration



Cloud-native application



Service level management

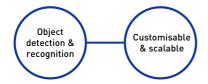


Centralised log management

## Traffic Enforcement in Sea Ports

#### SeaPorts Al

Deliver real time safety alerts for operations linked to lashing/unlashing of containers and road safety within the port.





# Heavy Vehicle Compliance Operations Drones Al

Rapid deployable ANPR vantage point for monitoring and enforcing heavy vehicle regulations by undertaking AI-led compliance activities.

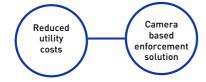




## Flood Risk Monitoring & Alerts

#### Water Level Monitoring

Cloud-enabled cameras to capture images of meter readings for real-time monitoring and alerting to ensure accurate water billing and detect early leaks.

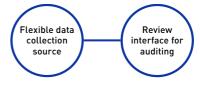




## **University Asset Audit**

#### Asset Al

Creation and management of a centralised asset database, making it easier to track the lifecycle of each asset with a complete geospatial data.





#### **API INTEGRATIONS**



















#### REPRESENTATIVE CUSTOMERS









































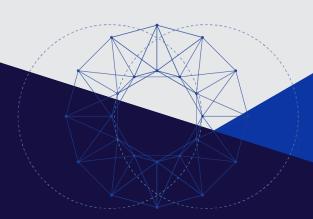














SenSen Networks

Australia | Canada | India | USA | Singapore sales@sensen.ai | www.sensen.ai

Transforming people's lives through Sensor Al technologies.